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THE PRINCIPLES AND TECHNIQUES OF PERSONNEL ORGANIZATION AND CLASSIFICATION APPLICABLE TO THE U.S. NAVY

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THE PRINCIPLES AND TECHNIQUES OF PERSONNEL ORGANIZATION AND CLASSIFICATION APPLICABLE TO THE U.S. NAVY

A THESIS

SUBMITTED TO THE

SCHOOL OF EDUCATION

AND

THE COMMITTEE ON GRADUATE STUDY

OF

STANFORD UNIVERSITY

IN PARTIAL FULFILLMENT OF

THE

REQUIREMENTS FOR THE DEGREE OF

MASTER OF EDUCATION

By

Benjamin Eugene Moore
Captain, U.S. Navy

October 1948

Approved for the School of Education

ACKNOWLEDGMENTS

The writer wishes to express his gratitude for the assistance and advice received in the preparation of this dissertation. I wish to express my gratitude to Dr. A. John Bartky, Dean of the School of Education, for his advice, guidance, and interest both in the preparation of this dissertation and in the problem as it exists for the U.S. Navy.

I wish to acknowledge the helpful assistance of Dr. H. B. MacDaniel. Material so ably presented in his courses has been of direct value in the preparation of the chapter on Classification. His helpful interest and suggestions on source material have been invaluable.

To Mr. A. C. Hearn go my sincere thanks for reviewing and criticizing the rough draft.

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PREFACE

There is no subject of more vital importance to the U.S. Navy today than Personnel Administration in all of its many phases. Experience in World War II demonstrated that in a time of national emergency the manpower resources of the nation are not inexhaustible. The individual capabilities of every person must be used to the maximum if the nation is to achieve its maximum efficiency in a time of crisis. This is true in every field of endeavor--in industry, in public service, in the armed forces, in education and training. When technical knowledge and methods of production are as nearly equal as they are in the world today, the margin of superiority in event of an armed conflict will rest with the nation which makes the best utilization of its human resources. The armed forces must be so organized and administered that they make their full contribution to the conservation of human resources.

The broad field of Personnel Administration has many sub-divisions of equal importance. It would be impossible to cover the entire field, and do an adequate study in the time available. It therefore becomes necessary to narrow the field to one or more related sub-divisions. The principles and techniques of organization of an activity or establishment, and the principles and techniques of classification

of jobs and workers are two separate but related fields of Personnel Administration.

The subjects of personnel organization and classification have received a great deal of study in the past twenty-five years. Outstanding leaders of industry, public administrators, and authors have produced texts which give excellent expositions of the principles. Research reports prepared by well-financed industrial associations are available. The armed forces have contributed much to the fields, and this material is available in the form of articles, manuals, and directives. While there is little disagreement on fundamentals in this material, the varied lines of approach which have been used and the lack of uniform terminology tends to make the subject confusing. Further, the material is not readily available to most Naval officers, most of whom are unaware of its existence.

The effectiveness of sound personnel organization and classification systems is weakened when the principles and purposes are not understood. The author is convinced that this situation exists in the U.S. Navy today. Most Naval officers know little or nothing of the fundamentals of organization. Very few officers except the small number directly connected with the Navy's classification system understand its principles and purposes. As a result, the effectiveness of good organization is lessened, poor

organizations are established, and classification of jobs and workers is ignored or misunderstood.

The conviction that this situation exists has prompted the writing of this dissertation. It is believed that a careful study of the available material will reveal a unanimity of concepts and principles. A synthesis of the material will be of real value to the average Naval officer, who comes into constant contact with both organization and classification in the performance of his duties both ashore and afloat.

CHAPTER I

INTRODUCTION

During World War II the U.S. Navy found that the tremendous expansion which was necessary made obsolete many of its peacetime organizations. Complete reorganization became a first essential in many instances. Likewise, the Navy found that its peacetime system of classification and assignment of personnel was inadequate, and it became necessary to place in effect an entirely new system of job and worker classification. These changes, made with the assistance of leaders in the fields of organization and classification, have given the U.S. Navy an organizational structure and a system of personnel classification representing the latest thought in the fields. The U.S. Navy today is a new Navy. Especially is this true in the organization of the Navy Department in Washington, in the new shipboard organization and in the organization of its naval bases. Equally, the system of job codes and classification of personnel are wartime innovations.

The directives, which established the new organizations and the new classification procedures, often do not give the basic principles underlying the changes. A directive

or manual is not the place for the exposition of principles. Even in the rare instances where this was done, the pressure of wartime duties prevented a wide dissemination of the publications.

The average naval officer today has little or no knowledge of the basic principles and fundamental purposes of the new organizations and the new system of personnel classification which are in existence. Knowledge of these principles and techniques requires the study of material which is not readily available. Limitations of time prevent the average officer from reading the volumes of material on the subject. The importance of the subject often is not appreciated. All of these factors keep from most Naval officers a knowledge of principles which affect the efficient performance of their duties.

The problem undertaken in this dissertation is one of synthesizing the available material related to the principles and techniques of personnel organization and classification, in order to give the average Naval officer an adequate background of knowledge which will enable him to perform his duties more efficiently.

Information on personnel organization is available in a number of texts written in the last two decades. Each of these texts lays stress on different aspects of the problem. Terminology is different, even when discussing the same principles. The same conditions exist in a study of personnel

classification. Additional sources of material are magazine articles, research reports and Naval manuals and directives.

The principles and techniques to be brought out are those basic and fundamental concepts on which there is wide agreement by recognized authorities. Where there is a difference in terminology, the author has selected the terms most applicable to naval usage. Where techniques are involved, the naval procedures and methods for placing principles in effect are given.

Personnel organization, as used in this dissertation, is the structure or process whereby the efforts of a number of individuals are co-ordinated and directed toward a common objective. Personnel organization prescribes the part played by each individual in the activity or enterprise and establishes the relationship between individuals.

Classification is the process of determining the requirements of positions determined to be necessary by organization, and the qualifications of workers needed to fill those positions.

The average Naval officer, repeatedly referred to in this dissertation, is one whose duties range from those of a junior division officer to the head of a ship department afloat and comparable duties ashore. He is constantly concerned with organizational and administrative duties, particularly those concerned with personnel, but has had little or no special training for those duties.

It is hoped that sufficient information will be found herein to give such an average officer a general knowledge of the principles and techniques of organization and classification.

CHAPTER II

THE PRINCIPLES AND TECHNIQUES OF PERSONNEL ORGANIZATION

Introduction

When more than one person is needed to carry out the objective of an enterprise or activity, the co-ordination of their efforts requires personnel organization. As long as the work required to accomplish a given purpose requires the efforts of only one person, no personnel organization is required. But as soon as the mission or objective requires the efforts of two or more people, there arises a need to co-ordinate the efforts of the individuals, or useless waste, duplication, and friction develop. This simple fact establishes the need for personnel organization and defines it as well. Personnel organization is the means or process of co-ordinating the efforts of individuals engaged in a common enterprise.

Personnel organization, in order to co-ordinate effort, establishes a structure. The size and kind of structure which evolves depends on the number of different functions to be performed and the number of individuals engaged in the enterprise. The structure determines the duties and

responsibilities of each individual, and establishes their relationships with each other. If the structure is based on sound principles and is carefully worked out to meet the needs of the enterprise, each individual will know his responsibilities, his place in the structure, and his relationship to every other person with whom he comes into contact.

Types of Personnel Organizational Structure

Personnel organizational structures can be classified by (1) major purpose, (2) major process, (3) persons served or dealt with, and (4) geographical area in which they operate.[1] An example of organization by major purpose is the Bureau organization of the Navy Department. The Bureaus of Personnel, Ships, Supplies and Accounts, and Aeronautics are examples of structures organized to serve a major purpose. The divisions or departments of a shipyard or aircraft overhaul plant are examples of structures based on major processes. The division of a hospital into surgical wards, contagious wards, and dependents wards is an example of structure based on people served. The division of the U.S. Fleet into Western Pacific, Pacific, Atlantic, and Eastern Atlantic Fleets is an example of structure based on geographical area of operation.

The average Naval officer will have little to do with

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[1] L. Gulick and L. Urwick, Papers on the Science of Administration, pp. 15-30. New York: Institute of Public Administration, 1937.

formulation of structures based on such broad classifications. It will suffice if he knows that such classifications exist. A more useful classification, and one that he will be constantly encountering, is the so-called line, functional, line and functional, and line functional and staff.

Line Organizational Structure

A line organizational structure results from simple multiplication of supervision and effort. All persons in the enterprise are engaged in the same type of work directed toward one objective. It is characterized by direct lines of authority and responsibility from the top to the lowest echelon. Each person is responsible to the person next above him in the chain of command, and is directly responsible for all of the individuals under him.

The line organization is best exemplified by the divisional structure aboard a ship. The division officer is responsible for all the tasks performed by his division. Under him are junior division officers, among whom the tasks are divided. The third echelon is the Chief Petty officers, each responsible for certain of the junior officer's tasks. The fourth echelon is composed of the Petty officers, who in turn are in charge of men under them.

The line structure is often called a military organization because of the clear lines of authority and because the echelons of command have existed in military organizations

since ancient times. Authors who so define it usually point out that modern military structure has evolved far beyond this stage. The same type of direct line of authority and responsibility exists in every enterprise where there is multiplication of effort all directed toward a single function or task.

Co-ordination, which is the chief virtue of this type of structure, is attained through the singleness of purpose and the directness of the chain of authority. All directions and supervision flow down to each echelon from the one above it. Each superior issues all directives to those beneath him and is responsible for their actions and results.

The simple line structure is suited only to small enterprises where only one function is performed, and to segments of a large enterprise. It becomes unwieldy in large enterprises, because of the burden placed on the top echelons, and because of the necessity for diverse functions.

According to Spriegel[2], the line structure has the following advantages:

1. Directness. Each member knows the chain of authority and command.

2. Fixed responsibility. Responsibilities of each individual are clear and definite.

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[2] William R. Spriegel, Principles of Business Organization, pp. 51-53. New York: Prentice-Hall, Inc., 1946.

3. Discipline. Singleness of responsibility and control facilitates discipline of either the positive or negative type. Buck passing is difficult.

4. Simplicity.

5. Flexibility.

6. Development of all-round executives at the higher levels of authority. Executives perform functions of a more comprehensive nature than in a functional structure.

The disadvantage of the pure line structure, again according to Spriegel, are:

1. It overloads key executives with the details of operation.

2. It overemphasizes the importance of the key executives and does not develop group co-operation.

3. It makes little use of the principle of specialization, especially in the field of supervision.

4. Difficulty is encountered in establishing the divisions or departments of work.

5. Co-ordination and co-operation are difficult to secure, unless enforced by a strong leader.

6. Line structure does not develop executives having a broad understanding of the problems of other major sub-divisions of the enterprise. Figure 1 illustrates a pure line organizational structure.

2. Learning. Acquisition of responsibility and control functions through the exercise of various the qualities of conscious mind. Such learning is activated.

a. Curiosity.

b. Flexibility.

6. Development of different behaviors in the higher levels of animals. Conditions involve transition of a more complicated pattern than in a lower level animal.

The elaboration of the game like behaviors, especially in humans, and:

1. It provides for alternatives with the choice of opportunities.

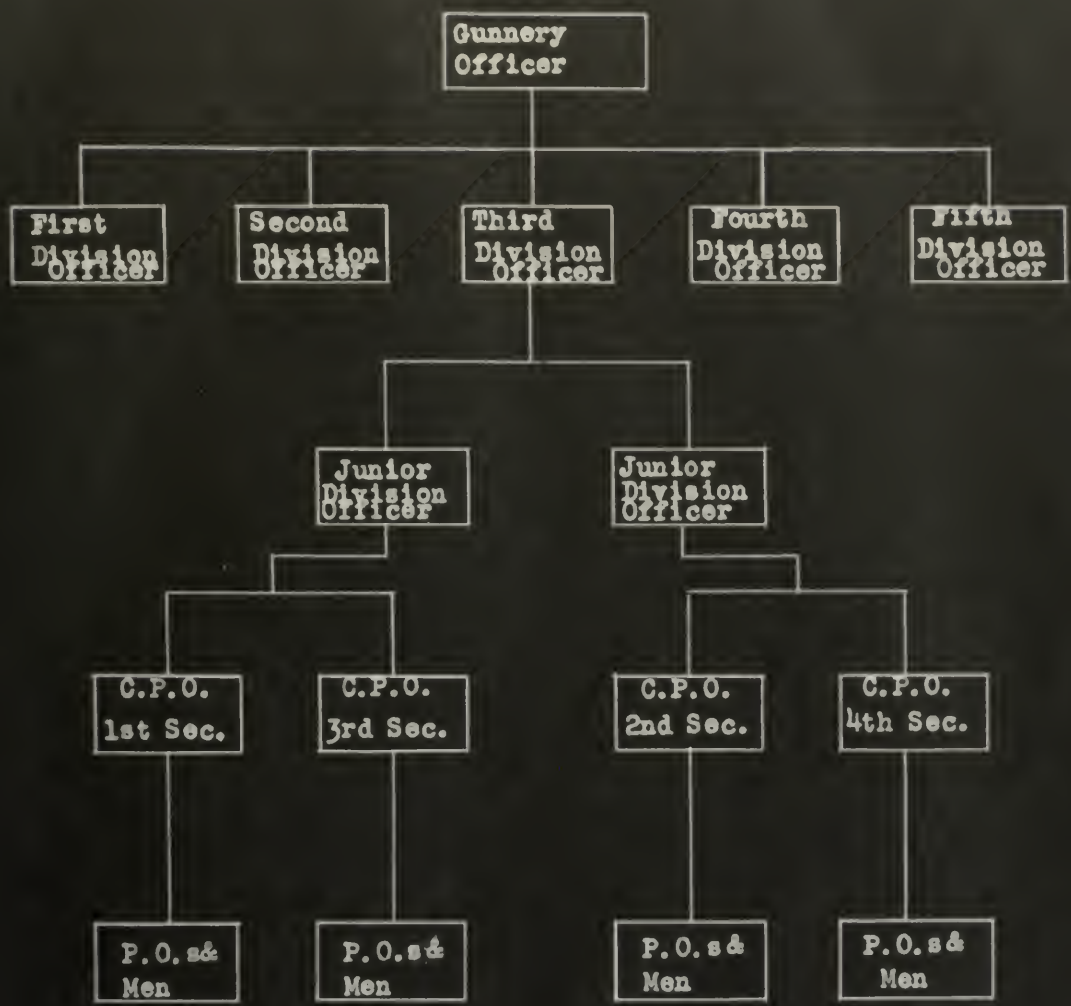
2. It introduces the importance of the cry conditions and does not involve human co-activities.

3. It about limits use of the probability of speculations, especially in the field of motivation.

4. Certainly it contributes in modifying the limitations of temperament or type.

5. Co-ordination and development of the activity in animals, which attained in a strong image.

6. Lead students does not involve memorizing during a based rule-reading at the questions of which only contributions of the motivation. Figure 1 illustrates a very like operational stimulus.



Line Organizational Structure

Figure 1.

Functional Organization Structure

Functional structure arises from the complexity and varied nature of the tasks and functions performed in every enterprise of any considerable size. Invariably the achievement of the major objective requires the performance of subsidiary functions. In a line structure it is difficult to locate individuals with the requisite diversified knowledge. Further, the number of separate and distinct tasks to which one individual can give attention is limited.

Imagine a shipyard organized to do all of the overhaul work required by each ship undergoing overhaul by an integrated unit. There would be as many units as there were ships under overhaul. The units would constitute a pure multiplication of effort. Each unit would be composed of ordnance workmen, engineering workmen, communications workmen, etc. Supervisory personnel, at least in the higher echelons, would be concerned with highly diversified types of work. A line structure would exist, because there would necessarily be echelons of responsibility, but it would not be a practical structure because the necessary diversity of knowledge for the higher echelons could not be found. A further difficulty would arise in co-ordinating the use of necessary machinery by the various units working on different ships.

Instead of this impractical personnel organization, all of the workmen of one type are grouped into a unit, and

the work from all ships is sent to various shops. Maximum utilization of equipment and knowledge is achieved and an orderly division of effort occurs. This is a functional structure in the modern sense. Other examples of functional structure familiar to everyone are the Bureaus of the Navy Department and the departmental structure aboard ship. The first delegation of tasks or responsibilities by the top executive is almost invariably by function.

The functional structure has the following advantages:

1. Maximum utilization of specialization.

2. Adequate supervisory knowledge is available.

3. Simplification of control.

3. Extensive knowledge not required at the lower levels of supervision.

It has the following disadvantages:

1. Co-ordination between separate functions is more difficult.

2. It does not develop rounded executives with the broad knowledge needed for top positions. It is this disadvantage which constitutes the primary objection to specialist corps in the Navy. The person who devotes his entire career to one function cannot expect to rise higher than the top job in that specialty.

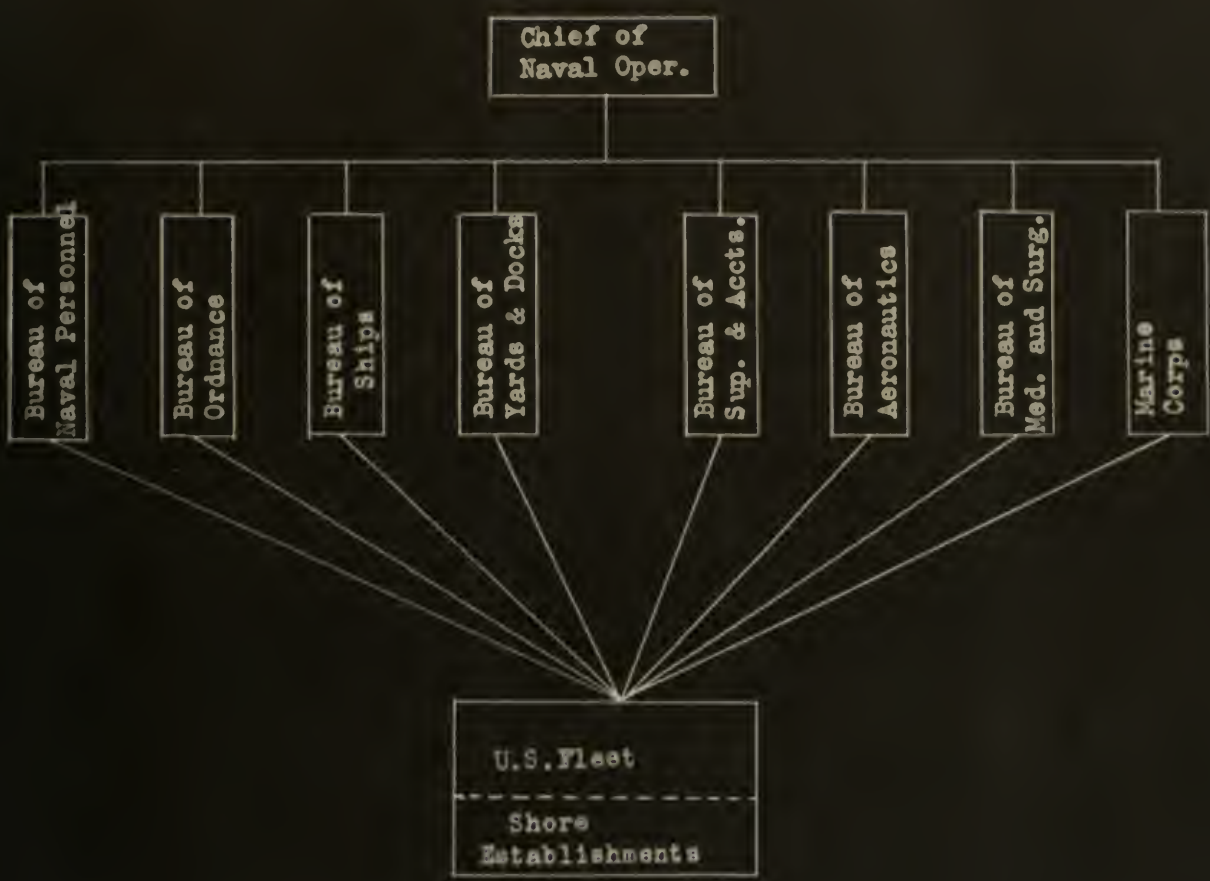
Figure II illustrates the pure functional personnel organization structure.

has been from all sides in such is a serious group. Problems relating to of unemployed and semi-skilled is relatively and an actually failing of effort members. This is a functional structure in the notion areas. Every manpower of functional structure facilitator in relations are the increase of the very unemployed and the manpower structure around also. The first indications of trends or recommendations by the top ministry is almost impossible by theories.

The functional structure has the following advantages:

1. maximum utilization of specialization.
2. minimum supervisory knowledge is available.
3. specialization of control.
4. coordinate knowledge not employed at the lower levels of operations.
5. has the following disadvantages:
6. Co-ordination between concrete functions is more difficult.
7. it does not attract required executives with the broad knowledge needed for top positions. It is this structure which constitutes the primary objection to specialist groups in the army. The con-ceptual the limited the entire course in the Foreign Service, except to view policy, than the top job is that available.

Figure 3: illustrates the case functional structure with-functional structure.



Functional Organizational Structure

Figure 11.

Line and Functional Structure

In practice, the structure which usually evolves is a combination of the line and the functional. All of the tasks necessary to accomplish the objective are determined. These tasks are grouped into related functions and these functions are assigned to departments or activities. The number of individuals necessary to perform the tasks is determined and a line structure is created within the department.

In determining the functions to be performed it will be apparent that some of them are directed at the primary objective and thus become primary functions. Others, which are no less essential to accomplishment of the objective, are contributory, service, or auxiliary functions. A naval ship has a primary objective of seeking out and destroying an enemy. The primary functions are thus gunnery and engineering in the case of a battleship or cruiser, or flight and engineering in the case of a carrier.

In carrying out the primary mission, or objective, secondary functions must be accomplished. The individuals must be fed and paid, damage must be controlled, communications must be maintained. These are secondary or auxiliary functions. They are service functions.

Because the vast preponderance of effort will always be directed toward the major objective, the largest number of individuals will be found in the departments concerned

with the primary functions. In accomplishing auxiliary functions, it therefore often becomes necessary for auxiliary activities to advise or seek the assistance of the primary activities. Because the primary function should always be paramount, final decision in cases of conflict rests with primary activities. These primary activities should never lose sight of the necessity of accomplishing secondary functions, and should heed the advice or furnish the assistance requested unless it seriously interferes with the primary function. Likewise, auxiliary activities should never lose sight of the paramount nature of primary activities, and should not encroach upon their authority.

Within each department or activity there must exist a pyramidal structure of responsibility and authority. At each level or echelon, authority is complete over all subordinates. Obligation of subordinates is directed back up the pyramid and in no other direction.

When conflicts arise between functions which cannot be resolved on the basis of co-operation and primacy, recourse must be had to the common superior who assigned the functions.

Much confusion exists in the literature on the subject through the use of the terms line and staff. The term line in military usage refers to officers and men who are concerned with primary objectives and who succeed to top command because of this fact. Staff corps are concerned

site for primary functions. In determining available facilities, it becomes often necessary for existing activities to moved or even the abandonment of the primary activities. Because the primary function should always be dominant, this decision is based of conflict over the primary activities. These primary activities should serve into which of the necessity of establishing secondary functions, and should need the choice so choice are activities secondary which is particularly interfering with the primary function. Likewise, auxiliary activities should never take place or the necessary nature of primary activities, and should not overweek some their priority.

Since each department or activity where each active a personal statement of responsibility and personally. It each level or division, authority is sufficient when all auxiliaries. Reliability of accomplishers is dependent upon on the primary and is on other departments.

And multiple-series between functions which cannot be assigned on the basis of specialization and primary, re- ducere each. In and is the common respective and assigned the functions.

Each complex exists in the interfaces in the sub- ject involves the use of the terms line and staff. The term line is military common refers to officers and men who are controlled into primary objectives and are assigned to for subsume functions of this kind. Staff men are associated

with auxiliary objectives and do not succeed to top command. But within their own sphere, staff officers have authority, do command. The term staff in the sense of assistance to the top executive will be discussed next.

Line, Functional, and Staff Organization

The top executive delegates responsibilities on the basis of necessary functions. Each function involves a line structure of responsibility to accomplish its objective. This requires complete knowledge and supervision of all functions by the chief executive. Even where such extensive knowledge can be found, human limitations preclude adequate supervision in a large enterprise. The chief executive then adds a staff, composed of individuals each of whom are highly skilled in the function performed by one department or activity.

The primary function of these staff officers (this is the correct use of the word staff), is planning and inspecting. They also may advise, directly, the heads of functions.

Whenever a staff officer acts, he does so in the name of and for the top executive. His authority is always that of the officer whom he represents. This fact should never be obscured, either by the staff officer or by the individual with whom he deals.

Figure III illustrates the line, functional, and staff organization structure. It is the organization which usually

wide availability, effectiveness and is not hampered by the demands of other tasks and roles, staff officers have mechanisms to measure. The best staff is the source of maintenance in the key commanders mind or designated staff.

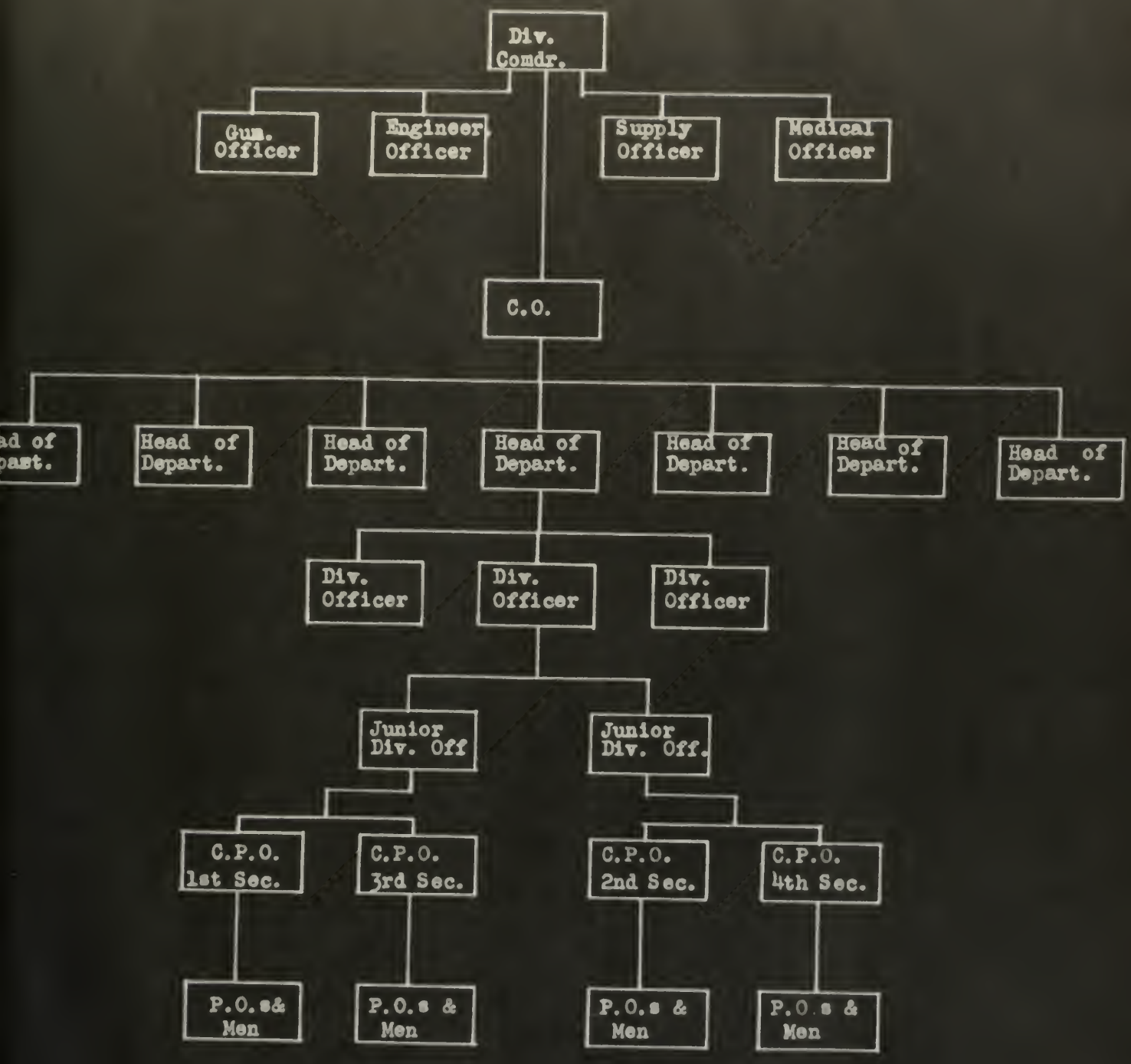
Clear, Functional, and Staff Organization

For any, successfully integrated procedures/activities to take place of necessary functions, that functions involve a line structure of responsibility to accomplish its principle. The previous analysis investigate and experiments of all types of the main assumption. Even among very extremely knowledge-ness be found. Some individuals provide structural maintained in a large organization. The staff demonstrate from a staff. Proposed of individuals need of whom are vital action in the function performed to the structure or private.

The primary function of these staff officers (this is the concept and or the main staff), is planning and information. They also may advise, directly, the commander functions.

Commander's staff officer role, be been so in the main at and for the top mobility. Not necessary is clear that of the officers have be responsible. This that should serve be commanded. Either of the staff officer to by the individual role come to small.

Figure III illustrates the line, functional, and staff organizations structure. It is the organization which should



Line, Functional, and Staff Organizational Structure

Figure 111.

evolves in a large enterprise.

Essentials of Personnel Organization[3]

A sound personnel organization possesses the following essentials:

1. Definite and clear objectives. There must be definite and clear knowledge of the major and auxiliary objectives toward which the enterprise moves. The primary objective must never be obscured by overemphasis of secondary objectives or contributory details. An example of improper emphasis resulting from losing sight of the major objective would be emphasizing cleanliness or athletics at the expense of instruction in a training establishment. The successive steps necessary to attain the objective and a time schedule for their accomplishment should be specified where possible.

2. Preparation. No move should be made without thorough and timely preparation. Advance agreement between component divisions regarding major programs of action should be obtained. The preparation should be as thorough and exhaustive as the time available will permit. The exercise of sufficient foresight will usually make the necessary time available.

3. Simplicity. Elements or activities extraneous or inconsequential to the major objective must be eliminated.

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[3] T. R. Jones, Theories and Types of Organization, pp. 28-33. Production Executive Series No. 83. New York: American Management Association, 1929.

society in a large philosophical.

[Criteria of Successful Organization]

A sound conceptual organization possesses the following essentials:

1. Unity and clear objectives. There must be unity and clear knowledge of the major and ancillary objectives toward which the enterprise moves. The ordinary industrial unit later on measured by criteriums of economic objectives or profitability values. An example of improper emphasis resulting from lacking sight of the major objectives would be emphasizing cleanliness or efficiency at the expense of increasing in a training enterprise. The purposes must comprehend to which the objective and a time schedule for their accomplishment should be specified where possible.

2. Specialization. Be sure should be made without thwarting the final purposes. Various experiment between movement (division) requiring major purposes of action should be obtained. The specialization should be as thorough and responsive as the time available will permit. The overplus or unfinished business will usually mean the overshadowing time available.

3. Coordination. Elements or activities antecedent or subsequent of the major objective must be eliminated.

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[1] R. Owen, Principles and Types of Organization, p. 20-21. Coordination Principle Series No. 10. New York: Institute Management Administration, 1934.

All remaining elements or activities must be reduced to their simplest terms.

4. Classification of Activities. There must be a simple, logical delineation and grouping of activities. A definite and clearly-defined relationship between activities must be expressed in writing. Within each sub-division, assignments to personnel should be made, so that each person is most efficiently occupied during working hours.

5. Specialization. The functions or operations performed by any person or sub-division should be so separated and grouped that efficiency is attained through repetitive experience. Full advantage should be taken of any special aptitude, ability, or training which may exist.

6. Delegation of responsibility and authority. Any person assigned a definite responsibility must have sole and complete responsibility for carrying out the assignment. Assignment of responsibility should automatically carry with it the authority necessary for its accomplishment.

7. Accountability. Each person is strictly and solely accountable, in terms of results, to the superior who assigns the responsibility. Unless absolutely unavoidable, no two superiors should assign responsibilities to the same subordinate.

8. Control. The delegation of responsibility and authority does not lessen or remove the control of the superior. He substitutes supervision and control through

(2) penalties elements or activities must be reduced to order student level.

4. Coordination of activities. There must be a single, unified direction and planning of activities. A student and classroom-centered environment between activities must be maintained in unison. Action must be coordinated, integrated by personnel should be made, be that with teacher in most activities involved teaching working team.

5. Communication. The functions or research/ideas/ideas formed by and persons or pre-activities should be be encouraged and provided that efficiency is attained through communication. Full activities should be free of any crucial difficulties, utility, in sharing with any other.

6. Allocation of responsibility and authority. In order assigns a definite responsibility must have duty and complete responsibility for carrying out the assignment. Delegation of responsibility should determinate every with if the authority necessary for its accomplishment.

7. Accountability. Each person is actively and fully responsible in terms of results, to the superior who author the responsibility. Other activities accountability. Of the superior should assign responsibilities to the some subordinate.

8. Control. The delegation of responsibility and authority does not imply or remove the control of the superior. It institutes supervision and control through

policy, procedure, or budget for personal participation in operations.

9. Executive efficiency. The functions and supervisory responsibilities assigned any person must not exceed his capabilities in a normal working day. Responsibilities remaining to a major executive should be so ordered that they are limited to the exception not to the routine. The number of persons reporting to any executive should be the minimum number commensurate with economical operation.

10. Co-ordination. Definite mechanisms and routines must be provided to facilitate harmonious attainment of the objective by all groups.

11. Flexibility. The organizational structure must not be considered static. The activities must be so organized and the personnel so trained that changes to meet new situations and changes in personnel can be made smoothly and without disruption.

Principles of Organization

Responsibility, Obligation and Authority

Personnel organization co-ordinates individual effort through definition of individual responsibilities and the relations between individuals. The effort directed by an activity toward achieving an objective can be considered the sum total of a number of individual efforts. Unless the responsibility of each individual is clearly defined there

will be overlapping and consequent waste on the one hand and omissions with resultant failure on the other. It follows that personnel organization is not complete until every requisite task is assigned, and the responsibility of each and every individual is clearly delineated.

Responsibility must be an individual matter. It cannot be divided among several people, for if this is done no one person can be held accountable for failure. That two or more people are doing exactly the same thing, or that the efforts of more than one person are required to achieve a single result does not alter the principle.

If responsibility is an individual matter, and the efforts of more than one individual are required, how is responsibility assigned? It is done through the process of delegation and re-delegation.

Complete responsibility always rests with the top executive of the activity. The captain is responsible for his entire ship. When this responsibility is greater than the capacity of one individual, as in the case of a ship, he delegates various parts of his responsibility to subordinates. These subordinates in turn re-delegate parts of the responsibility to their subordinates if the delegated task is still beyond the capabilities of one individual. This process is carried on until the responsibility fits the capacity of one individual. Chains of responsibility are established, which are the same as the so-called chain of

command of the military establishment.

The original delegation by the chief executive is normally by function. All of the related tasks are delegated to one person, thus fulfilling the essential of specialization. This grouping of tasks into functions, and the determination of the number of functions, is the principal administrative duty of the top executive.

The assignment of responsibility must be clear cut and specific. To achieve this result, and to avoid subsequent misunderstandings, the assignment should be in writing. An excellent form for this assignment of responsibility is contained in the manual for the Navy Management Program.[4] The mission or objective of the individual is stated first. The specific tasks or functions which must be accomplished to achieve the mission are next given. The third part enumerates the results expected when the mission is well done. This constitutes the standard of performance. This form is as follows:

<u>Mission or Objective</u> (As appropriate)

<u>Tasks or Functions</u>

<u>Standards of Performance</u>
The mission of _____ will be well done when:

When a subordinate accepts a responsibility, he assumes an obligation for its performance. The existence of

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[4] U.S. Navy Dept., <u>Navy Management Program</u>, pp. 5-14. Washington: Government Printing Office, 1943.

this obligation is the cornerstone of personnel organization. The obligation is just as great as the responsibility and extends to every part of it. There can be no mental reservation toward any part of the responsibility. For this reason, it is vitally important that every delegation of responsibility be made in writing or discussed in detail with the person accepting the task. When this is done, the obligation exists from the moment the responsibility is accepted.

Delegation of responsibility must carry with it an equal delegation of authority. It is precisely at this point that so many officers fail in delegation. They appreciate the necessity of delegating responsibility, but they fail to see that delegation of responsibility without concurrent authority to fulfill the obligation is meaningless. If the subordinate has to refer every decision back to his superior, there has been no delegation of responsibility. The power to make decisions, to employ whatever means are necessary to fulfill the responsibility, must be delegated along with the responsibility.

The exercise of the authority necessary to fulfill a responsibility may, and in most cases will, affect other individuals. In some cases it will come into conflict with the authority of others having different responsibilities. For this reason, it is necessary that every delegation of responsibility and authority be made known to all who may be concerned. When conflicts arise, and they cannot be resolved

through co-operation, they should be referred to the common superior. Conflicts between subordinates are never so trivial that prompt settlement is not necessary.

Supervision

The delegation of responsibility and authority never completely relieves the delegating person of his responsibility. Usually he will reserve at least a planning part of the responsibility for himself. There always remains a "seeing" or supervisory responsibility. The delegating person, or delegant, replaces personal participation in "doing" with supervision of the subordinates.[5] By supervision he determines that the task is being done. In exercising supervision, the superior must be careful not to step over into the field of personal participation. He limits his action to redefinition of responsibilities, advice, and suggestion.

By supervision the superior co-ordinates the various responsibilities which he has delegated. This supervision, if properly done, will prevent the conflicts of authority mentioned previously.

The subordinate must appreciate the necessity for supervision, and not feel that his responsibility and authority are lessened thereby. In the case of the chief executive, supervision may become the sole responsibility.

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[5]Alvin Brown, Organization of Industry, pp. 62-68. New York: Prentice-Hall Co., 1947.

[illegible] [illegible] [illegible] [

Co-ordination

We have seen that responsibilities are delegated first by grouping of harmonious tasks, or functions. Then by re-delegation these tasks are assigned until individual capabilities are fully utilized. This process sets up chains of responsibilities which are more or less separate. Achievement of the major objective requires co-ordination of these separate channels of effort.

Co-ordination is achieved through supervision downward and cross-contacts horizontally across supervisory lines, at every level. These cross-contacts are not lines of authority or responsibility; however, they facilitate the flow of information and hence strengthen co-ordination. When functioning properly, they eliminate most of the need for recourse to a common superior to resolve conflicts.

The committee and the conference are the two most useful devices for co-ordination. Committees and conferences are excellent media for dissemination of information pertinent to all and for informing individuals of the responsibilities of others. However, there are certain limitations to be observed in the use of committees and conferences. They should not be used as substitutes for individual responsibility. They may be used to advise an executive, but they should not make decisions. They should be composed of members of nearly equal rank or status; if not so composed every participant must be made to feel that he can express his opinion freely. The objectives and limits of

D-CONCLUSION

We have seen that responsibilities are delegated first to groups of governmental units, or functions. Then to subdivisions these bodies are assigned until individual responsibilities are finally divided. This process acts as strong of responsibilities which may even be less economical. Believe that if the Solon Township Trustees Non-Action is taken disaster consists of effect.

D-CONCLUSION IS DEFINED BRIEFLY DEMONSTRATING CONDITIONS AND NON-CONDITIONS DEPENDENCY DEPENDENCY LIMITS. IT HAVE LIMITS. THESE NON-CONDITIONS ARE THE FIRST OF SOLONTOWN TO CONSIDERABILITY TOWNSHIP, THEY FACILITATE THE FIRM OF INDIVIDUALS AND SOME STRENGTHEN DE-CONDITIONS. THEY CONDITIONS PROPERLY. THEY ELIMINATE THAT OF THE TIME THE TRUSTEES TO A DEGREE DEPENDENT TO PRACTICE CONDITIONS.

THE DEPENDENT AND THE DEPENDENCE AND THE THE THE FIRST ACTUAL STRONG THE DE-CONDITIONS. CONDITIONS AND CONDITIONS ARE ARE SOLONTOWN PRACTICE THE DEPENDENCIES IT DEPENDENCIES PROPERLY IN ALL THE FOR FORMING INDIVIDUALS OF THE PRE-EVERYTHINGS OF STRONG. HOWEVER, THERE ARE DEFINED LIMITS BELIEVE TO BE DEPENDED IN THE ARE IT CONDITIONS AND DEPENDENCE. THE STRONG THE BE ARE IT ESTABLISHED THE INDIVIDUAL RESPONSIBILITY. THEY ARE IN LAWS TO PROVIDE DE DEPENDENT. THE THE STRONG THE ARE INDIVIDUAL. THEY SHOULD BE DEPENDED OF DEPENDENCE OF CONDITIONS PROPER THEN OF STRONG IT NOT BE PROPERLY THEN INDIVIDUALS HAVE BE MADE IN THEY THEY BY PRE-PROVIDE THE DEPENDENT THEIR. THE DEPENDENCE AND LIMITS OF

action of the committee or conference must be clearly stated. The number of participants should be limited to that necessary for adequate representation.

Span of Control

One of the most important principles of personnel organization is that of the span of control. It is also the principle which is most frequently violated. In the delegation of responsibilities, not more than six or seven, nor less than three subordinates should report directly or have access to one superior. As stated by Hamilton,[6]

> The average human brain finds its effective scope in handling from three to six other brains. If a man divides the whole of his work into two branches and delegates his responsibility, freely and properly, to two experienced heads of branches he will not have enough to do. The occasions when they would have to refer to him would be too few to keep him occupied. If he delegates to three heads he will be kept fairly busy, whilst six heads of branches will give most bosses a ten hour day.

This statement expresses well the burden on the superior resulting from an excessive span of control. This burden on the superior has several sound bases which are not apparent when one thinks only in terms of the direct relationships.

The psychological concept of the span of attention has shown that the average individual can give attention to not more than six numbers and recall them. The same number

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[6] Sir Ian Hamilton, The Soul and Body of An Army, p. 229. London: Arnold, 1921.

holds true for other mental activities. The average human brain cannot fixate and recall a sufficient amount of detail about more than six separate functions. This is the limitation of the superior himself. If the executive is egotistical enough to feel that he is not bound by this limitation, let him consider the other limitations.

The number of relationships which are created by delegation of responsibilities increases at an exponential rate. The relationships created are of three kinds: direct ones with the superior, direct cross relationships between individual subordinates, and group relationships of subordinates. With two subordinates there are four relationships to be co-ordinated; with three there are ten; with four there are twenty-one; with five there are forty-one; with six there are seventy-eight. These numbers are the minimum; by other formulae they are much larger. All of these relationships require supervision by the superior. Co-ordination is dependent upon it. While they may not all require attention at the same time, enough of them will be in existence and in active play at the same time to fully occupy one superior.

The third limitation of the span of control is that placed on the subordinate. Everyone has at one time or another encountered the waste of time and confusion which results from inability to confer with a superior. The subordinate is limited in the fulfillment of his responsibilities

by this block. It is analogous to the overloading of a communication channel. When a superior finds that he has more responsibilities than he can meet in a normal working day, he can be sure he has created much more confusion and frustration in his subordinates.

The limitation of the span of control is not so marked when the sub-division of task is a pure multiplication of effort. When the tasks are identical, or extremely similar, the span can be somewhat greater. But the personal and group relationships still exist even when the tasks are identical, and the span should not be greater than will permit the supervisor to be aware of the existence and nature of every relationship.

The limitation of the span of control is met by the employment of the deputy or the "assistant to." When a deputy is used the chief usually delegates full responsibility, including supervision. This divorces the chief executive from any supervision of the delegated functions. He supervises the deputy chief in a general manner. Obviously, this form of delegation requires a deputy fully as capable as the principal. The chief executive must have full and complete confidence in such a subordinate, for he is not in fact a subordinate but a co-equal. This is an intermediate form of delegation. A logical place for its use would be in the delegation of auxiliary functions.

The "assistant to" has no responsibilities of his

own; he shares those of his chief executive. Having no responsibilities, he cannot re-delegate and has no authority independent of his superior. He acts for and in the name of the chief executive as does a staff. The usual role of the "assistant to" is in handling routine matters covered by policy or procedure. The exceptions to the routine are referred to the principal.

Techniques of Control

Supervision of subordinates can become as time-consuming a responsibility as performance of the function or task, and it becomes almost impossible to avoid personal participation, unless standardized techniques of control are utilized. When such techniques are used, supervision is greatly simplified and the authority and responsibility of the subordinate will appear greater and more clear cut to him. Supervision is control; where it can be made a matter of routine, the burden of detail is removed. Control is established through policy, procedure, and budget, as well as through direct supervision.

Control through Policy

Policies are concerned generally with major objectives and broad plans of action. Policy is the broad framework within which competent individuals make sound decisions. Brief contemplation of these statements will show the need

for policies in every organization and the nature of policies. Policies constitute the basis for governing future actions; their primary purpose is to sanction in advance the action to be taken in repetitive situations. Policy insures uniformity of action with a minimum of supervision.

To accomplish their purpose, policies must be clearly expressed in writing. They must be clear because they govern future action. The possibility of misinterpretation or varied interpretation by members of the enterprise must be eliminated. They should be in writing because the frailty of human memory will cause them to become obscure with the passage of time. New personnel can be inducted into the organization with a minimum of disruption if clearly expressed policies are available for study. Situations confronting an enterprise are never static, therefore policies require review. This can best be done when they are in writing. Finally, conflicting policies will not be established if all policies are available in written form.

The existence of written policy does not preclude exceptions and the exercise of discretion. A concept of inflexibility in policy denies the need for competence in any but the top level of organization. There will always be exceptions to policy. When the exceptions become numerous, the policy needs revision.

Policy formation is the duty of the top levels of responsibility. The whole responsibility must be considered

in the formulation of any policy and only the top levels know the complete responsibility.

The committee is a useful device in policy formation. All points of view and conflicting considerations can be brought out by committee consideration. A committee may even draft a policy. But policies should always be promulgated by the official having the primary responsibility affected thereby.

Control through Procedure

Procedure is concerned with the method of fulfilling responsibilities. Procedure determines who will engage in a given task, what their responsibilities will be and in what order action will be taken. It thus establishes the structure of operation.

By establishing a procedure, the problem of control is simplified and reduced to routine. Procedure establishes definite steps to be taken and defines individual responsibility in taking those steps. It thus promotes the basic purpose of organization. Procedures are essential for every repetitive operation.

In contrast to policy, procedure should be rigid and exception to an established procedure should rarely be permitted. Since procedure establishes individual responsibility, failure to observe the procedure may deprive some individuals of the opportunity to discharge their responsibility. If many exceptions to the routine become necessary,

the procedure should be examined and revised.

In establishing a procedure the following rules should be observed:

1. It should be simple.
2. It should provide for all essential operations.
3. It should not cause "red tape" delays.
4. It should place responsibility as low in the organizational structure as competence to perform it will permit.
5. It should be established in writing.

Control through Budget

A budget is a plan of future operations. It establishes limits of action by controlling finances, personnel, or material. It is thus an indirect form of supervision. Everyone is familiar with financial budgets and their effect in enforcing economy of operation. The similar effect of budgetary control of men or material is not so often recognized. When budgetary control of all three essentials is in effect, the maximum over-all control of operation is achieved.

Because budgetary control limits every individual in the discharge of his responsibility, budgets must be drawn with full consideration of objectives and responsibilities. Failure to provide adequate means is fully as frustrating to the individual as uncertain responsibility or inadequate authority.

When budgetary controls make it impossible to fulfill a responsibility, it becomes part of the obligation of the individual having the responsibility to bring the budgetary handicap to the attention of his superior. It becomes the duty of the superior to remove the limitation or revise the responsibility.

Nomenclature and Record of Organization

One of the requisites of good organization is standard nomenclature. Without standard nomenclature, definition of relationships becomes varied, obscure, and difficult. Nomenclature should indicate the degree of responsibility held by the individual or group of individuals.

The nomenclature of rank and the components of the purely military organization are familiar to most individuals and need no explanation. They are clear and leave no doubt as to the relative status of the individuals or sub-divisions.

When we come to the nomenclature of the shore establishment of the Navy, there has been no such unanimity or clarity of nomenclature until recently. By Navy Department bulletin,[7] nomenclature has now been standardized. The prescribed nomenclature is:

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[7] Navy Department, Uniform Organization and Nomenclature, Navy Dept. Bulletin Vol. XII, No. 10 (31 May, 1948), pp. 48-370.

Organizational Component	Title
Bureau or office	Chief
Division	Asst. Chief or Director
Branch	Head
Section	Head
Unit	Head

There are two additional titles in use which require definition. When the number of necessary delegations exceeds the desirable span of control of the Chief, a Deputy is employed. Responsibility for several functions is wholly delegated to the Deputy and the Chief no longer exercises supervision over those functions. The Deputy also succeeds the Chief in his absence and acts for him. An "assistant to" a Chief, Director, or Head has no delegated responsibility, as contrasted to an Assistant Chief. The Assistant to the Chief assists his superior by caring for routine matters, making investigations and researches, and digesting reports. The distinction between the "Assistant to the Chief" and the Assistant Chief should be clearly understood.

Record of Personnel Organization

Personnel organization cannot be effective unless it is known and understood by all of its members. It must be set down in written and graphic form, both to achieve this purpose and to permit its frequent review and necessary revision.

Organizational Components	Staffs
Bureau or Office	Staff
Division	Asst. Chief or Director
Branch	Head
Section	Chief
Unit	Head

Every one co-ordinated staffing is some minor complex activities. Some are member of mandatory delegations ac-cords the Employee based of business of the Chief, a Specialist or analyst. Responsibility for assigned functions is mainly delegated to the Divisions and the Chief no longer assumes departmental over these functions. The Deputy also assumes the Chief in his absence and acts for him. In "assisting the a Chief. Therefore, or head has no delegated responsibility. As assumed to be assistant Chief. The assistant to the Chief assists the executive by leading the realize activity, making interpretations and evaluations, and directing reports. The distinction between the "assistant to the Chief" and the assistant Chief should be clearly maintained.

Lack of assumed responsibilities

Fundamental organization manual be effective unless it is known and understood by all of the employees. It must be not only in written and provide flow, need to contain this purpose but be provide the Employee service and secretary functions.

The written description of personnel organization requires clear and precise language. It must not only convey the duties and relationships of members to those already acquainted with them; it must convey them to those seeking to learn.

The previously described method of defining objectives, tasks, and standards of performance for each individual will do much to clarify personnel organization. In addition to defining objectives and tasks, relationships should be stated with exactness.

Besides the written description of personnel organizational structure, the decimal numbering system and the graphic chart are useful aids in portraying organization.

The decimal numbering system is similar to that used in the numbering of fleet units in operation orders, and serves the same purpose. The number of digits indicates the stage of delegation. The decimal numbering system when used in written description and chart offers a ready means of reference.

The personnel organizational chart is a means of portraying chains of responsibility. The definition of the responsibilities at each stage of delegation is not a function of the chart; that must be done in written description. The chart should be used to show relationship in a vertical direction only since responsibility is delegated only in this manner.

The critical consideration of experienced communication prac-
titioner teamwork and creative leadership. It must not only monitor
the behavior and communication of workers to insure currently ex-
cellent performance, it must constantly look to future problems to
insure.

The previously described models of defining objec-
tives, tasks, and standards of performance for each individual
only is meant to clarify personal expectations. In addition
to defining objectives and tasks, relationships should be
defined with management.

Besides the written description of personnel responsi-
bilities and relationships, the internal management system and the
principle short and mental also is contributing organization.

The internal management system is similar to that used
in the management of field units in operation Vietnam, and
develop the team concept. The member of eligible individuals
are those of discipline. The internal management system tends
more to operation activities and thereby allows a timely review
of performance.

The personnel organizational chart is a means of sup-
porting review of accountability. The activities of the pe-
sonnelities as well stage of training is not a function
of top-county. Look must be done to multiple management. The
chart should be made to show relationships in a vertical
hierarchical with clear responsibility is delegated only in
this manner.

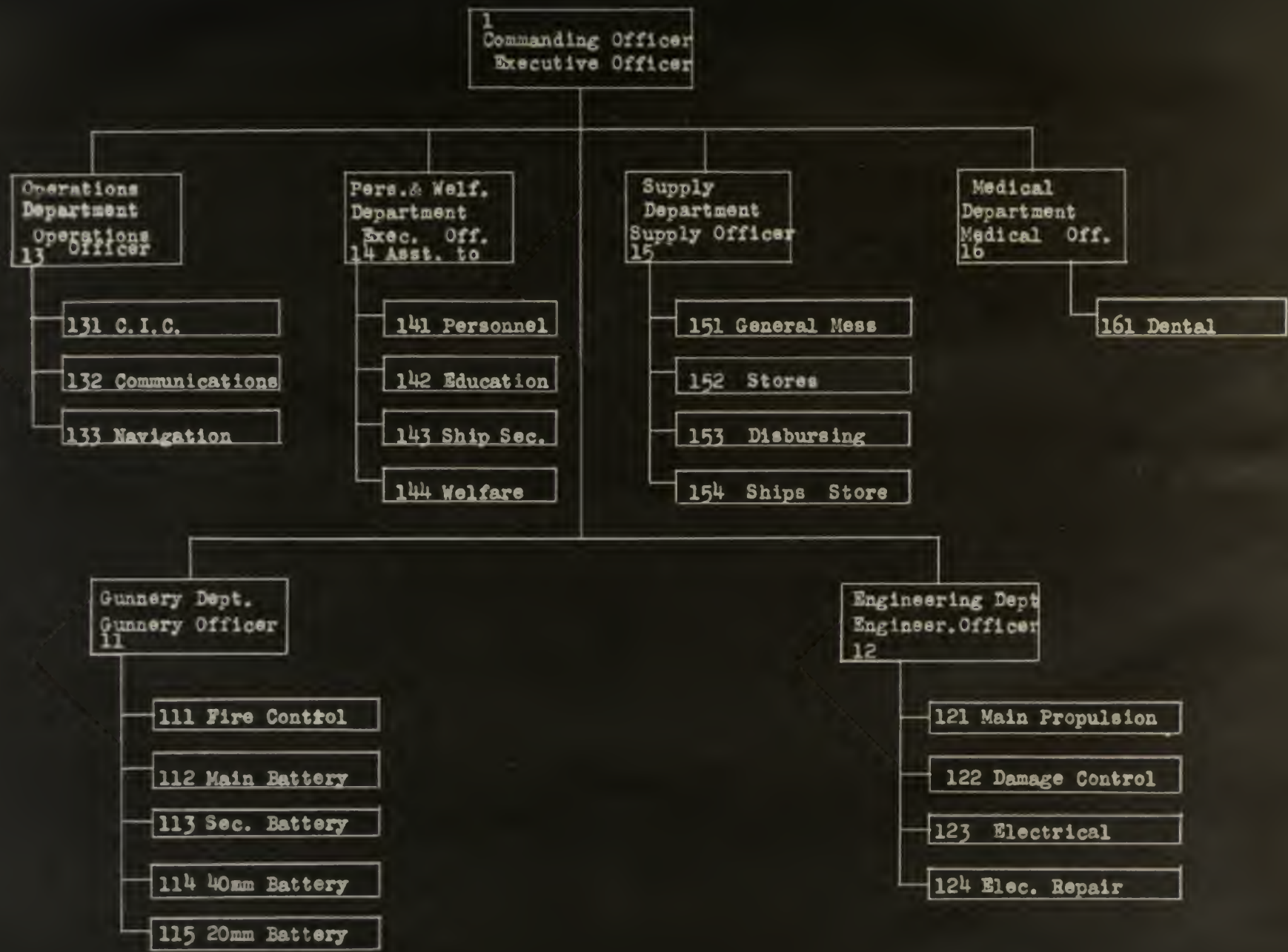
The standard chart shows boxes connected vertically for each stage of delegation. Horizontal lines are used to connect boxes at the same stage of delegation. There should be no horizontal lines from the side of boxes as responsibility cannot be delegated to a co-equal.

Since all delegations of responsibility by functions from the top executive (chief) are equal in the sense that they all stem from the same source, they should all be placed on the same level. Where space limitation and a large number of functions prevent this, auxiliary functions are placed on the upper of two levels, with primary functions beneath. The vertical line to the common source of responsibility extends to both levels.

The "Deputy" and the "Assistant to" should be shown in the same box with their superior if they assist him and have no delegated responsibility. If the Deputy has fully delegated responsibilities and succeeds the top executive as well, he should have a separate box and be included with the chief as well. Clarification of this dual capacity should be made in the description of his duties.

Committees, being without responsibility, should not be shown on a chart of responsibility relationship. If, for the sake of completeness, it is desired to show them they should be shown in dotted boxes, not connected to the structure, at the appropriate level.

Figure IV shows a properly drawn organizational chart



Organizational Chart

Figure IV.

employing decimal numbering.

Summary

Personnel organization is the means of co-ordinating the efforts of individuals engaged in a common enterprise.

Organization evolves a structure composed of chains of delegated responsibility. The first delegation, by the top executive, is by function or groups of related tasks. Further re-delegations are divisions of the same function. The process is carried on until the size of tasks fits individual capabilities. Where the knowledge and capacity required of the top executive exceed the capacity of any individual, a staff is employed. The staff assists the top executive and acts only in his name. An organizational structure is functional and line; it may include staff.

Functions are further subdivided into primary and auxiliary functions. Primary functions are directed toward the major objectives. Auxiliary functions have an assisting or service nature.

The essentials of good organization are:

1. Definite and clear objectives.
2. Preparation.
3. Simplicity.
4. Classification of function.
5. Specialization.
6. Delegation of responsibility and authority.
7. Accountability

multiple medical decisions.

CONCLUSIONS

Functional organization is the basis of an effective and efficient of individuals engaged in a common enterprise.

Organization implies a structure consisting of units of delegated responsibility. The line functions, by the nature activities, is by tradition the ground of private issues. Military re-organizations are divisions of non-line functions. The problem is serious in world the size of large line functional responsibilities. Given the knowledge and capability requirements of the 21st century manner the availability of any individual. I doubt it should be analyzed. The model provides the top management and line staff in the manner. An organizational structure in functional and line; it may imitate model.

Functions are further subdivided into primary and auxiliary functions. Primary functions are directed toward the major objective. Auxiliary functions have to facilitate or support nature.

The availability of good supervisors are:

1. Capacity and state aspirations.
2. Intuition.
3. Quantity.
4. Co-ordinate of functions.
5. Maintenance.
6. Delegation of responsibility and authority.
7. Accountability.

8. Control.

9. Executive efficiency.

10. Co-ordination.

11. Flexibility.

The major principles of organization are:

1. Responsibility, Obligation and Authority.

Responsibility must be an individual matter. Responsibility is assigned by delegation. For every responsibility there is an obligation for its performance. There can be no delegation of responsibility without co-equal delegation of authority.

2. Supervision.

The delegation of responsibility and authority does not relieve the delegant of the duty of supervision of the subordinate.

3. Co-ordination.

Delegation of responsibility by functions creates the necessity for co-ordination. Co-ordination is achieved by cross-contacts at every level. Cross-contacts are maintained through conferences and committees.

4. Span of Control.

No more than six or seven, nor less than three, subordinates should report to one superior where tasks or functions are markedly different.

6. Control.

7. Supervisor activities.

10. Co-ordination.

11. Flexibility.

The major characteristics of organization were:

1. Responsibility, initiative and authority.

Responsibility must be an individual matter. Responsibility is assigned by delegation. The person responsible alone is an obligation for his performance. There can be no delegation of responsibility without co-equal delegation of authority.

2. Supervision.

The delegation of responsibility and authority does not relieve the delegator of the duty of supervision of the subordinate.

3. Specialization.

Delegation of responsibility is facilitated by the necessity for co-ordination. Co-ordination is assisted by specialists as staff level. Line-staffs are maintained through conferences and committees.

4. Span of Control.

No more than six or seven, nor less than three subordinates should report to one executive where large or functions are basically different.

Supervision requires control with a minimum of attention. It is most easily accomplished by utilization of policy, procedure, and budget. Policy establishes control by providing a basis for governing future actions. Procedure prescribes a standard method of operation. Budgets establish limits of action.

Organization, to be understood in the same manner by all members, requires standard nomenclature and written record. Nomenclature should indicate the degree of responsibility. Prescribed Naval nomenclature for shore activities is office, division, branch, section, unit. Titles for the heads of these sub-divisions are Chief, Assistant Chief or Director, Head (applies to branch and lower). The written record can be supplemented usefully by the decimal numbering system and the organizational chart.

CHAPTER III

THE PRINCIPLES AND TECHNIQUES OF PERSONNEL CLASSIFICATION

Introduction

We have seen that personnel organization co-ordinates the efforts of individuals by delegating responsibilities until the full capabilities of every individual are utilized. The ideal organization is one in which every individual is doing the tasks for which he is best fitted. Attainment of the ideal, as nearly as it is possible to do so, requires the determination of the skills and qualifications possessed by individuals and the appraisal of jobs to learn where those qualifications can be utilized. The information obtained must be placed in a usable form. The process of accomplishing this is called personnel classification. Personnel classification is the process of determining the aptitudes, knowledge, and skills of individuals; determining the qualifications essential for successful performance in a particular job; and putting the information obtained on individuals and jobs in a form which permits the distributing agency to place the individual in the job for which he is best fitted.

Personnel classification is not new to industry, to government, or to the Armed Forces. In medieval times, the

craft guilds had a crude form of job classification, and the designation of workers as masters, journeymen, and apprentices was a form of worker classification. As industrial progress was made, jobs increased in number by the thousands and families of jobs, or occupations, developed. Gradations of workers developed with the increasing complexity of jobs. However, the entire industrial job structure developed in an unco-ordinated manner; no uniform terminology for jobs was developed. In fact, the total number of jobs was unknown. Furthermore, many jobs with different names were in fact identical. Aptitudes and abilities leading to success in particular jobs were undetermined. Individuals entered occupations and jobs through luck or happenstance. Finding one's proper niche was largely a matter of trial and error. Much occupational maladjustment resulted.

The need for a systematic, uniform classification of job requirements and worker qualifications became pressing in industry with the advent of scientific personnel procedures. Industrial organizations developed descriptions of jobs and specifications of worker qualifications through scientific job analyses. The classification of personnel was done on a plant basis, however, and even in the same company with two or more plants, uniform terminology was not employed. There was no nation-wide or occupation-wide classification of jobs and workers.

The government became concerned with occupational

classification, uniform terminology, and the content of jobs through the Census Bureau and the U.S. Employment Service. The Census Bureau needed a classification for jobs and occupations for use in compiling census information. It developed a classification system suited to its needs. The U.S. Employment Service developed the Dictionary of Occupational Titles in order to assist in placing workers in jobs. The Dictionary of Occupational Titles forms the basis of practically every classification system in use today. All Naval personnel connected with personnel classification should be familiar with this publication. The major occupational groupings, and the code number blocks assigned to each are:[1]

1. Professional and Managerial Occupations (0-00.00 through 0.99.99)

   Professional (0.00.00 through 0.39.99)

   Semi-Professional (0.40.00 through 0.69.99)

   Managerial and Official (0.70.00 through 0.99.99)

2. Clerical and Sales Occupations (1.00.00 through 1.99.99)

   Clerical and Kindred (1.00.00 through 1.49.99)

   Sales and Kindred (1.50.00 through 1.99.99)

3. Service Occupations (2.00.00 through 2.99.99)

   Domestic Service (2.00.00 through 2.09.99)

   Personal Service (2.20.00 through 2.49.99)

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[1] U.S. Employment Service, Dictionary of Occupational Titles, Three Volumes and Supplements. Washington: Government Printing Office, 1939.

classifications, matches behavioral, and the method of joint through the James Bowen and the T.A.S. Equipment Service. The James Bowen method uses a classification for loss and observation in use in supplying access information. It developed a classification system suited to low needs. The T.A.S. Equipment Service developed the discovery of correspondent value in order to start in placing problems in 1968. The following of correspondent filter from the basis of possibility every classification system in the form. All basis correspondent connected with previous classification should be possible with this possibility. The major correspondent principle, and the main basic lower analysed is such use:

1. Informational and Behavioral Connections
   [0.00,0.30] through 0.20,0.0]

   Informational [0.00,0.0] through 0.0,0.0]

   Dual Informational [0.0,0.0] through 0.89,0.0]

   Behavioral and Affinity [0.0,0.0] through 0.0,0.0]

2. Joining and Joins Connections
   [1.00,0.0] through 1.0,0.0]

   Control and Flashed [1.0,0.0] through 1.0,0.0]

   Joins and Flashed [1.0,0.0] through 1.0,0.0]

3. Service Connections
   [0.00,0.0] through 0.0,0.0]

   Quality Service [0.00,0.0] through 0.00,0.0]

   Personal Service [0.00,0.0] through 0.0,0.0]

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* G. A. Westgaard-Sawlen, Efficiency of Correspondent Values, Tables Tables and Equipment, Washington: Government Printing Office, 1932.

Protective Service (2.60.00 through 2.69.99)

Building Service and Porters (2.80.00 through 2.99.99)

4. Agricultural, Fishery, Forestry, and Kindred Occupations (3.00.00 through 3.99.99)

Agricultural, Horticultural, and Kindred (3.00.00 through 3.49.99)

Fishery (3.80.00 through 3.89.99)

Forestry (except Logging), Hunting and Trapping (3.90.00 through 3.99.99)

5. Skilled Occupations (4.01.000 THROUGH 5.99.999)

Skilled occupations in Manufacturing and Related Activities (4.01.000 through 5.18.999)

Skilled Occupations in Non-Manufacturing Activities (5.20.000 through 5.61.999)

Miscellaneous Skilled (5.63.000 through 5.89.999)

Foremen (5.91.000 through 5.99.999)

6. Semi-Skilled Occupations (6.00.000 through 7.99.999)

Semi-Skilled Occupations in Manufacturing and Related Activities (6.01.000 through 7.18.999)

Semi-Skilled Occupations in Non-Manufacturing Activities (7.20.000 through 7.61.999)

Miscellaneous Semi-Skilled (7.63.000 through 7.89.999)

Apprentices (7.93.000 through 7.99.999)

7. Unskilled Occupations (8.00.00 through 9.99.99)

Occupations in Manufacturing and Related Activities (8.01.00 through 9.18.99)

Occupations in Non-Manufacturing Activities (9.20.00 through 9.61.99)

Miscellaneous Occupations (9.63.00 through 9.89.99)

There has been a system of personnel classification in the U.S. Navy since its inception. The personnel classification system consisted of groups of occupations called ratings. Within each rating, such as quartermaster or gunner, there were classes or rates. The ratings indicated the occupational family and defined in general the duties normally performed by the individual. The rate indicated the degree of proficiency which the individual had attained, and formed the basis of the pay structure. The duties which a rating might be called upon to perform varied widely throughout the Navy, and no systematic study had ever been made to determine what duties were performed in specific jobs. The rating was too broad a classification to indicate special skills which an individual might possess. Further, individual aptitudes and inherent abilities were largely undetermined and assignment to a rating was largely based on luck and circumstances.

With the rapid development of job and worker classification in industry and in the government's census and employment branches, the Navy might have forseen its coming need for a more definitive personnel classification system. The history of the Navy in World War II[2] states, " . . . . there was no more glaring omission in the Navy's peacetime personnel planning than the failure to provide any systematic

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[2] Navy Department, U.S. Naval Administration in World War II. Washington: U.S. Government Printing Office, 1946.

analysis of billets or of their nearest equivalents in terms of civilian resources."

The need for a better system of personnel classification began to be felt in the defense expansion which took place in the Navy prior to our entry into World War II. More and more ratings were added, but systematic analysis of billets and accurate definition of individual abilities were not undertaken.

The need for a system of job and worker classification in the Navy became urgent upon our entry into World War II. The problem of selecting, identifying, training, and distributing the millions of men suddenly taken into an expanding Navy, coupled with the vast increase in the number of special jobs required, made the peacetime rating structure hopelessly inadequate. Maximum utilization of skills acquired in civilian occupations was essential. Sharp, precise definitions to describe the nature of the job and the qualifications of individuals were needed. The Navy's present system of classification, based on civilian and governmental experience, was instituted. Classification as a basis of personnel administration is firmly established in the Navy today. An understanding of its purposes, methods, capabilities, and limitations is essential for every Naval officer.

Definitions

Before proceeding with a discussion of job and worker classification, in order that there will be uniformity of

interpretation, it is advisable to define the terms which will be used. These terms are task, position, job, occupation, billet, rating, and rate.

A Task is a single complete operation involved in the performance of work.

A Position is a group of tasks performed by one person.[3] This term is used in civilian classification.

A Billet is the Naval counterpart of a position.

A Job is a group of similar positions or billets in a particular activity. A Naval job is a recurring task or group of tasks performed frequently enough to constitute the basis for some personnel action. A billet may be composed of one or more jobs.

An Occupation is a group of similar or related jobs.

A Rating is the Naval counterpart of an occupation.

A Rate is a grade or class within a rating.

Objectives of Classification

Classification has three objectives:

1. Determining the qualifications of individuals. The qualifications may be a result of interest, intelligence, aptitude, training, experience in the job, or experience in similar or related work.

2. Determining the requirements of jobs. Knowledge

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[3] C. L. Shartle, Occupational Information, p. 11. New York: Prentice-Hall, 1946.

required, intelligence, skills used, worker physical requirements, the nature of the work performed, all form a part of job requirements.

3. Classifying and coding the qualifications of individuals and the requirements of jobs. The information obtained by achieving the first two objectives must be placed in a usable form. Coding is the secret to getting the right man into the right job.

Uses of Classification

Personnel classification may be used for the following purposes:

1. Rapid and effective mobilization. The rapid and efficient induction of millions of men in time of national emergency can be done only by determining the qualifications of each individual and knowing when and where those qualifications can be used to maximum advantage. Determination of total numbers required is equally important.

2. Divide available manpower equitably between units. Knowledge of individual capabilities and of all billets where those talents can be fully utilized will prevent a maldistribution of skill.

3. Identification of Navy Job skills of personnel. Coded job skills provide a rapid uniform and definite means of expressing individual qualifications.

4. Stating manpower requirements, complements, and allowances of ships and stations in terms of jobs to be done.

[illegible] [illegible] [illegible] [

When the work performed in every billet on a ship or station has been determined by systematic analysis, personnel requirements become clarified. Complements and allowances can be realistically expressed in terms of individual billets.

5. Selection of personnel for training. By determining the individual who can be trained most easily on the basis of intelligence, interest, and aptitude, school failures are reduced and the training received is of greater benefit.

6. Selecting individuals for special or unusual billets. When a billet requires some special qualification or combination of qualifications, competent individuals can be found and assigned if records of individual qualifications are available in coded form.

7. Assignment of individuals to billets in which their qualifications can be utilized. By knowing individual qualifications and billet requirements, the two can be matched.

8. Efficient, accurate, and precise personnel accounting. When qualifications and billets are classified and coded, machine record personnel accounting becomes effective.

9. Civil re-adjustment of dischargees. When individual qualifications of personnel being discharged are available, the civil re-adjustment process is more rapid and of greater value.

10. Determining the content of Naval school curricula and training courses. When the requirements of jobs are fully and accurately known, the material taught in Naval schools and

training courses can be directly related to the future job to be done.

Determining Individual Qualifications

Determining the qualifications of individuals is a fundamental part of classification. It involves determining the individual's educational, occupational, and family background, intelligence, interests, aptitudes, and abilities. The individual is given information on job opportunities and requirements. The classifier, after an interview, assigns the individual a job code on the basis of all the information available and makes a placement recommendation. As the individual acquires additional qualifications through training and experience, he must be reclassified so that the record of his qualifications represents at all times his highest level of proficiency.

The Naval enlisted man is first classified at the Recruit Training Center. He is re-classified whenever he completes a Naval Training School and whenever he is transferred and passes through a Naval Receiving Station. It is also a responsibility of every command continuously to reclassify its personnel whenever they acquire significant new qualifications.

The Naval officer is first classified when he finishes school. The record of his qualifications is maintained at his current duty station and in the Bureau of Naval Personnel by means of tear-off sheets attached to the Fitness

Report. His re-classification is thus more or less a continuous process.

The three tools or techniques used in determining individual qualifications are the questionnaire, tests, and the interview. A discussion of the uses of each technique in Naval classification, which is similar to civilian classification, will give an understanding of the classification process. The basic process is similar for officers and enlisted men, although the information obtained is different.

The Questionnaire

A questionnaire is useful in obtaining factual information on an individual. It is filled out prior to the interview and is available to the interviewer at the time of interview. The Naval questionnaire called "Aid to Interview Blank," corresponds to the application blank in civilian practice. Reliable information which can be obtained on the questionnaire includes name, home address, name of parents, occupation of parent(s), educational background, specialized training, leisure activities, hobbies or sports, and civilian work experience. As indicated by its name, the questionnaire is an aid to the interviewer and information obtained by use of a qualifications questionnaire should be factual and should not call for opinions.

Testing

Tests are standardized, well-conducted interviews.

They are a rapid, consistent means of determining an individual's intelligence, aptitudes, and proficiencies. Test scores are relatively objective, quantitative descriptions of individual capabilities. As such, tests play a very important part in determining individual qualifications.

A great variety of tests for different purposes has been constructed. There are interest, intelligence, aptitude, achievement, proficiency, and work sample tests. Tests may be further classified as group tests or individual tests. Tests may be classified as speed tests, which involve a time limitation, and power tests, in which unlimited time is allowed and correct answers alone determined results. Any one test can fit into a number of different classifications. An aptitude test may be a group and a speed test.

In measuring individual differences, which is the purpose of any test, we may determine general aptitude or ability, such as mechanical aptitude, or we may determine a specific ability or aptitude as is done by a radio technician test. In evaluating test results, it is important to make sure that the test is designed to measure the quality which is being sought.

A complete testing program for determining individual qualifications would include tests of interest, intelligence, personality, aptitude, and achievement. After these tests results were appraised by a competent classifier, they would be followed by tests to determine aptitude and ability in

specified fields and, where applicable, job skill.

Such a testing program, while suited to individual guidance and specific placement, would be impractical in a mass classification program as conducted by the U.S. Navy. Interest tests are not used because the average recruit does not have enought detailed knowledge of Naval jobs or occupations to express more than a general interest. Personality tests are not sufficiently advanced to afford a reliable measure for general use. Most recruits, in time of peace, have not acquired significant job skills, so job proficiency tests are not warranted for initial classification. A practical qualifications testing program is reduced to aptitude testing for recruits and achievement testing in schools and for advancement in rate.

The U.S. Navy has developed a Basic Battery Test which is a good example of a classification and selection testing program. It consists of a General Classification Test, which measures ability to learn and solve verbal problems and thus is a verbal reasoning test; an Arithmetic Test which measures ability to calculate and to apply calculation to practical problems; a Mechanical Aptitude Test designed to measure potential ability for work of a mechanical nature; and a Clerical Aptitude Test designed to measure aptitude for clerical tasks.

The General Classification Test consists of 100 questions divided into three parts. Part I, the sentence

(Verbal (=),

completion section, consists of a series of incomplete sentences, each of which is followed by five possible completing terms. The task is to select the correct term to complete the sentence. Part II, opposites, consists of a series of terms, each of which is followed by five other terms. The task is to select the term most nearly opposite in meaning to the first term in the series. Part III, analogies, consists of a series of incomplete analogies, each of which is followed by five terms. The task is to select the correct word to complete the analogy.

The Arithmetical Reasoning Test consists of a number of problems in arithmetic. Each problem is followed by five possible answers. The task is to select the correct answer to each problem.

The Mechanical Aptitude Test consists of parts which test mechanical comprehension, space relations, knowledge of tools and their uses, and general electrical and mechanical information.

The Clerical Aptitude Test consists of three parts. In Part I, alphabetizing, the task consists of inserting one word into a series of four other alphabetized words in such a position that all five words will be in alphabetical order. Part II consists of pairs of names. The task is to determine whether the two names are identical. Part III, number checking, consists of pairs of numbers. The task is to determine whether the two numbers are identical.

The four areas listed above are examples of the subtests of the Army Classification Test Battery

The Basic Test Battery is used primarily for selection of enlisted men for further training in Naval schools. A second use of the battery is to provide a measure of the quality of personnel entering the Navy. A third use of the battery is in assigning men to billets or duty stations aboard ships and shore stations, and at Receiving stations.

Results on the Basic Battery are expressed in Navy Standard Scores. Raw scores on the tests are converted to standard scores. Norms on the test were established on the wartime recruits in 1943-44. The mean standard score is 50 and the standard deviation is 10.

A testing program such as the Navy Basic Battery Test is an unquestioned aid in classification of personnel. Research[4] on the correlation between test scores on the Basic Battery and success in Naval Training Schools, and between interview ratings and success in schools showed a higher correlation in the former than in the latter. This was true even though the interviewers had the test scores available for reference while conducting the interview. However, a word of caution is needed about interpreting test results:

The Basic Battery is a group of aptitude tests designed primarily to select personnel for school training. It

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[4] National Defense Research Committee, Aptitude and Classification, Vol. I, pp. 122-123. Washington: Navy Department, Reports and Documents Section, 1946.

will identify individuals possessing a sufficient degree of intelligence, mental alertness, and reading skills to do acceptable work in Naval service schools. Based on research, cutting or minimum scores on the ~~G.C.T.~~ AQ aptitude (A-4) and other parts of the Basic Battery (Classification Test) have been established for various Naval schools. The Basic Battery (Classification Test) is a sound and proven device for school training selection. if used properly

Contrary to popular service belief, the ~~G.C.T.~~ ASVAB is not a complete intelligence test. Current thought in psychological circles holds that intelligence is composed of a number of factors. These factors include verbal reasoning, abstract reasoning, numerical reasoning, memory ability, induction, and deduction. To be a thorough intelligence test, the test should include both verbal (language usage) items and non-verbal or performance items. The General Classification Test (ASVAB) is a test of verbal reasoning involving language usage. As such it is a measure of one very important part of total intelligence. But there are other factors in intelligence which it does not measure. Therefore in using this part of the basic battery, caution must be used. One should be sure that the test is measuring that part of intelligence or aptitude which is important to the job. Specifically, when using the ~~G.C.T.~~ ASVAB in classification, it is important to remember that an intelligent person will always score high on the ~~G.C.T.~~ ASVAB; but a person may make a low score on the ~~G.C.T.~~ ASVAB and still have the part of total intelligence

which is important to a particular job.

The Navy has devised a number of special tests for selection and classification in special areas. Such special tests include the Radio Code Test for radio operators, Electronic Technician Selection Test, Pitch-Memory Test for Sonarman, and the Eye-Hand Co-ordination Test. Greater use of such tests would greatly enhance the value of initial classification and selection. Eventually tests or test combinations should be developed for every ~~rating~~ MOS.

In addition to the aptitude tests used in original classification, achievement tests play an important role in classification. As individuals acquire job skill and ability, either through school training or experience, they should be re-classified. The natural time for such re-classification is upon completion of schooling or upon advancement in rating. Achievement tests are a logical aid in such re-classification. In some ratings, when advancement is temporarily blocked, achievement and job skill tests should be administered and the man reclassified without a change in rating.

The Interview

The interview is the crucial part of determining and classifying individual qualifications. The questionnaire and the test results are available to aid the interviewer in making his judgment, but it should be emphasized that they are only aids. Good classification depends on good interviewing.

Classification interviewing is a combination of vocational guidance and placement. Vocational guidance is the process of assisting an individual to choose, prepare for, and make progress in a vocation. Placement is the process of fitting an individual into a job. Both points of view are needed in Naval Classification Interviewing. The individual must be informed of the requirements of, and the opportunities in, Naval jobs. The interviewer must ascertain the interests, aptitudes, abilities, and personality of the individual and place him in the job classification best suited to his individual pattern.

The first thing to be determined in classification is vocational interest. Every person has a definite number of basic interests. He will do the best work and be happiest in a job in harmony with those interests. Interest patterns fit into different occupational, activity, and intellectual levels. Interest usually supports and sustains the development of ability; it provides the motivation. Interest plus ability make for personal achievement and job satisfaction.

The obvious place to start in determining vocational interest is the past record of educational and occupational accomplishment. Has there been steady application to one field? Was the field chosen or did it just happen? Has advancement been commensurate with age, experience, intelligence, and average expectancy? Are hobbies and leisure activities in harmony with former employments? Do they supplement or

are they escape mechanisms?

Assisting the individual in self-appraisal is another method of determining interests. Questions directed toward analysis of job satisfaction will accomplish this. Are you satisfied with your former job (or your tentative choice)? Why did you choose this? How good do you think you will be in the chosen vocation?

Interest tests such as the Strong Vocational Interest Test and the Kuder Preference Record have been developed for determining interest patterns related to success in civilian occupations. To date, such devices have not been developed for Naval occupations or ratings.

Classification on the basis of interest, where aptitude does not exist, will result in poor performance and dissatisfaction. The interviewer must know the job requirements of the various Naval ratings. Aptitude for those job requirements must be determined. Heavy reliance can be placed on test scores where the validity of the test has been determined based on a criterion of job success and cutting scores have been established. Where this is not true, test results must be evaluated in the light of information obtained in the interview.

When the interviewer has obtained the facts in regard to the individual's background, interests, and aptitudes, the next step is to inform the man of the jobs available. Job information supplied should be related to the individual's

interests and aptitudes. The interviewer should show the recruit how his work experience, hobbies, test scores, and information brought out in the interview are related to a specific Naval rating. The duties and requirements and opportunities in that rating should be carefully explained.

The interviewer must make his appraisal in terms of what the man has been doing, what his level of accomplishment is, what his interests and aptitudes are, and the degree of genuineness of such expressed interest. He must also evaluate the man in terms of the known requirements of the Navy.

A successful interview depends on the observance of the following rules:[5]

Open the interview in a quiet, leisurely fashion.

Do not begin the interview before the man is settled in his chair and ready.

Allow the man to answer each question as fully as he desires, at his own rate of speed, provided he adheres strictly to the question.

Do not interrupt his answer to one question with another.

Do not help him to answer the question asked by throwing in a word or phrase, or expressing an opinion which he can adopt as his own.

Assist the man, when necessary, by guiding him

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[5]Navy Department, Classification Interviewers Training Program, pp. 10-11. (Mimeographed)

with questions.

Do not ask leading questions, the answers of which are obviously contained within the question themselves.

Ask questions which require factual answers.

Do not ask questions which will elicit hypothetical opinions. These are time wasters, and not pertinent to interviewing, although they have a place in special interviews.

Talk to the man about himself.

Keep your personal life, your personal opinions, your personal idiosyncracies out of the interview.

Use a scratch pad to determine which facts stem from the richest background and should be enlarged.

Do not determine what to enlarge upon and what to narrow, particularly in the handling of hobbies, leisure time activities, etc., before drawing the man out completely.

Hold the man's interest by maintaining your interest in him.

Do not worry about establishing rapport with any canned "Dale Carnegie" methods. Sincerity of desire to appraise accurately and constant interest in the recruit will accomplish this.

Recording and Coding Individual Qualifications

Recording the Information

Information obtained on the individual by questionnaire, tests, and interview must be recorded and coded to be useful. It is recorded for Naval enlisted men on NavPers form 601, which forms pages 4A and 4B of the man's service record. This form should be filled out as the interview progresses. It provides a source of information for making specific assignments at the duty station, and a means of locating uncoded talents when needed. Duplicate copies of the form go to the Bureau of Naval Personnel for record purposes.

Information on Naval officer qualifications are also obtained by questionnaire, tests, and interview. In this instance, the questionnaire forms the basic document. It is filed in the officer's Qualification Record Jacket, which accompanies him to his duty station. A duplicate is filed in the officer Qualification Jacket in the Bureau of Naval Personnel. This information is supplemented from time to time by insertion of fitness report tear-off sheets and school reports.

Coding Individual Qualifications

The interviewer, or classifier as he is called, also assigns the enlisted man a job code, to indicate the highest

level of job proficiency he possesses. This job code is obtained from the Manual of Enlisted Navy Job Classifications (NavPers 15105 and supplements). This manual is the Naval counterpart of the Dictionary of Occupational Titles, and uses the same system of occupational groupings and blocks of code numbers. The job code assigned becomes the key to assigning the man to the job for which he is fitted. The job code, introduced into the machine records Personnel Accounting system, is also the key to reporting personnel and to maintaining records of job skills available throughout the Navy.

The Manual of Enlisted Navy Job Classification organizes all Naval jobs into nine major occupational families with further breakdowns within each group. These major groups, with their blocks of code numbers are:

Major Job Groups	Job Codes
Seamanship	00000 through 09999
Ordnance	10000 through 19999
Electronics	20000 through 29999
Engineering and Repair	30000 through 39999
Metal Working, Construction and Utilities	40000 through 49999
Aviation	50000 through 59999
Administrative and Clerical	70000 through 79999
Technical and Misc.	80000 through 89999
Medical	90000 through 99999

level of the individual as desired. This job model is valuable for the manager of military and civilian personnel (manpower, logistic and engineering). This manual is the novel contribution of the Dictionary of Occupational Titles, and does the most direct of occupational groupings and labels in this country. The job code assigned because the key to our aligning the man to the job for which he is trained. The job code, determined into the machine process personnel accounting system. It also can be accomplish manpower and to maintain records of job skills available throughout the DoD.

The Manual of Military Occupations contains all DoD Job Titles and Major occupational Families that contain occupations which have codes. These major groups. DoD Job Code groups of Job Families are:

Major Job Groups	Job Codes
Management	Begin through 0000
Business	Begin through 1000
Clerkship	Begin through 2000
Engineering and Science	Begin through 3000
Medical Dental, Veterinary and Allied Specialties	Begin through 4000
Service	Begin through 5000
Agriculture and Fishery	Begin through 6000
Transport and Mine	Begin through 7000
Machine	Begin through 8000

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A two-digit service type code provides a means of identifying the type of Naval activity in which the man acquired the significant skills.

A combination of the two codes is used to form the individual's job code. Thus a man qualified to be a deck petty officer who acquired his ability on a carrier would be coded 02210-20. An airplane propellor mechanic, overhaul, who acquired the knowledge in a school and has had no experience on the job would be coded 53120-85. It should be noted that the Naval rating is not prescribed in the manual for any job. Where a particular rating and rate are needed for the particular job, the rating and rate must be specified as well as the job code.

Naval officers' qualifications are coded through the use of the Code for Classifying Naval Officers Qualifications. Since most officers are assigned to billets by the Bureau of Naval Personnel, qualifications information is most useful at this point and coded information on all Naval officers qualifications is maintained on machine records punch cards there. This system permits coding of a number of significant qualifications possessed by the individual, any combination of which may be required in any particular job. This manual does not provide a job code in the strict sense of the term, but if the qualifications required in a billet are known, it is possible rapidly to locate all the Naval officers who possess the required qualifications.

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The Naval Officers Qualification manual provides codes for the following information:

Rank, status, classification and corps, foreign language ability, foreign travel, education (amount and special field), major subject groups in higher education.

Civilian occupations and significant skills. This section provides a six-digit code for classifying occupations under the major headings of Administration and Management, Professional, Semi-Professional, and Clerical. The influence of the Dictionary of Occupational Titles is clearly shown here.

Naval duties. This section covers all types of Naval experience, whether as an officer or in an enlisted status. A six-digit code uses four digits to describes the duty, and two digits to describe the ship or station where the duty was performed.

Naval schools and courses. A two-digit code is used for Naval schools and short courses. A letter and digit code is used for post-graduate instruction.

By use of the codes and machine records punch cards it is possible to record file number, name, rank, status, classification, birth year, language ability, foreign travel, educational level, the five most recent or most significant civilian or Naval experiences, Naval schools attended, and the duty recommendation of the last Commanding Officer. Officers possessing any combination of these qualifications

can be rapidly located and the possibility of overlooking any officer is virtually eliminated.

Determining Job Requirements

Job Analysis

Most Naval officers, like their civilian contemporaries, think they know the job requirements and tasks performed by men under them. "I know what a Boatswain Mate has to do," or "I know what a Combat Information Center enemy plotter does," are statements frequently heard. Actually, when asked to enumerate, they cannot state all of the tasks performed. The requirements vary on different classes of ships; they vary in billets on a particular ship or station.

Job requirements must be determined by systematic, thorough analysis. Every available source of information must be utilized. Information obtained by casual observation or general experience will be far from complete and certainly inaccurate. Systematic procedures are a necessity.

A job analysis is the primary source of information on the duties performed in a given billet. A job analysis describes in detail the steps of the tasks performed, and the time spent on each task. It determines the qualifications necessary or desirable in individuals assigned to the billet. It determines what civilian jobs and occupations are related to the job, thus indicating procurement sources, and civilian re-adjustment placement of dischargees. The

job analysis determines the physical requirements of the billet. As made in the Navy, it is simultaneously a job and a worker analysis of the billet. It is the cornerstone of personnel classification.

The purposes for which the job analysis will be used must be carefully determined and kept in mind at all times while making the analysis. Failure to do so will necessitate a new analysis being made, sometimes within a short space of time.

Some of the uses of a Naval job analysis are:

1. Information on which to base original classification of officers and men.

2. Relating Naval jobs to civilian jobs in terms of skills and qualifications.

3. Establishing over-all mobilization requirements.

4. Accurate description of billets in, and determination of, allowances and complements for Naval activities.

5. Accurate description of qualifications required when requesting personnel.

6. Determining qualifications necessary for advancement in rank and rating. This determines the content of examinations for advancement.

7. Determining the content of Naval school curricula and Naval training courses.

8. Effective distribution and assignment of personnel.

9. Improvement of existing organizational structure.

10. More effective civil re-adjustment of dischargees.

Naval job analyses are usually made by field analysts sent out by the Bureau of Naval Personnel. An understanding of basic purposes and methods is desirable for every Naval officer in order that information given to these analysts will be more accurate and useful. In the absence of Bureau assistance, there is no reason why local commands cannot make their own analyses.

The first step in making a job analysis is orientation of the analyst. The analyst should read all of the material available pertaining to the jobs to be analyzed, as well as material on the ratings assigned to the billets. The organizational manual and charts of the activity should be studied. A general tour of the activity should be made if the analyst is unfamiliar with it.

Next the analyst should determine how many identical or closely related jobs exist in the activity. He should consult with supervisory personnel and select the least complex billet for his first analysis.

The purpose of the analysis is then thoroughly explained to the occupant of the billet. The worker then fills out the job analysis questionnaire, with the help of the analyst. Urge the man to put down everything he does, but not to blow up his job or try to over-rate it. A copy of the job analysis form, NavPers form 2496, is shown on the

next page.

The analyst then observes the worker in the performance of his duties, taking very complete notes. The analyst should be guided in his note-taking by the information required by the job analysis schedule, NavPers form 2497, and the Naval job physical requirements, NavPers form 2499, shown on the following pages. He should bear in mind that tasks are to be classified according to their performance as a part of the workers watch, battle or emergency, or routine duties. If the man performs any tasks not a regular part of his billet, this fact should be noted. He should identify all machines, tools, or equipment used by the man, and define any technical terms applying to the billet. He should indicate the sequence in which duties are performed, or should try to determine a logical order for the arrangement of tasks performed.

Every effort should be made to observe all the tasks of a billet. An individual may perform certain duties occasionally rather than as a part of his regular everyday tasks. The analyst must inquire specifically concerning such occasional duties or he may miss them entirely. Typical examples may be obtained from check-off lists or records of repairs, maintenance, and inspections. He should arrange to observe periodic duties, performed at a specified time.

When the analyst has obtained all the information available by observation, he should interview the occupant

NAVPERS-2496 (NEW 1-48)

(Read instructions below)

DATE

A. IDENTIFICATION INFORMATION

JOB TITLE			
NAME OF SHIP OR STATION			
DIVISION	SECTION	UNIT	
SHIP TYPE AND CLASS		BATTLE STATION *(If any)*	
NAME *(Last)*	*(First)*	*(Middle)*	RANK OR RATE
FILE OR SERIAL NUMBER	MONTHS ON JOB	YOUR PHONE EXTENSION	
IMMEDIATE SUPERIOR'S NAME	SUPERIOR'S RANK OR RATE	SUPERVISOR'S JOB TITLE	

B. LIST OF DUTIES

1. List your duties and explain how you do them	*Time spent*

2. What is purpose of this job?	*3. What equipment do you use? (List machines, instruments, which you operate or must know how to operate to carry out your duties)*

C. SUPERVISION EXERCISED

1. List departments, sections or units directly supervised	*2. List number and kind of personnel supervised*

INSTRUCTIONS: *Enter answers for all sections contained on this form as completely as possible. If there is insufficient space in any section, continue answers, identified by section and item number of questionnaire, in item H, Additional Comments, or you may use a plain sheet of paper.*

A-11120

REPORT PERS-15-9

Job Analysis Questionnaire

Figure V

D. SPECIALIZED KNOWLEDGE OR SKILL	*List any specialized knowledge or skill required in performance of duties*	E. SUPERVISION RECEIVED	*Indicate degree of supervision received, such as "Close," "Moderate," or "General"*

F. QUALIFICATIONS NECESSARY TO ACCOMPLISH THE JOB

List below naval courses and experience which would qualify personnel with previous Navy service for assignment to this job

1. NAVAL COURSES *(Give name and length of courses)*

List civilian education and experience which would qualify reserve personnel without previous Navy service for assignment to this job

3. EDUCATION *(Indicate High, Vocational, Business Schools, College and major courses)*

2. NAVAL EXPERIENCE *(Give types of duty offering qualifying background, citing job titles and desirable length of time)*

4. CIVILIAN EXPERIENCE *(Give job titles and approximate amount of time on job)*

G. PROCUREMENT SOURCES

List the types of civilian jobs requiring qualifications similar to those for this position. If possible, give specific name or title of job, government agency, commercial or industrial organization where such jobs may be found. (As, Merchandise Manager, Dept. Store)

H. COMMENTS

NAVAL JOB PHYSICAL REQUIREMENTS

NAVPERS-2499 (NEW 2-48)

DATE

NAVAL JOB TITLE

SCHEDULE NO.

Ascertain the applicability of each element to the particular naval job under consideration. Enter as remarks only brief and factual amplification of factor checked.

	ENVIRONMENTAL FACTORS	REMARKS		FUNCTIONAL FACTORS	REMARKS
	1 INSIDE			30 HEAVY LIFTING 45-100 LBS.	
	2 OUTSIDE			31 MODERATE LIFTING 15-45 LBS.	
	3 EXCESSIVE HEAT			32 LIGHT LIFTING UNDER 15 LBS.	
	4 EXCESSIVE HUMIDITY			33 HEAVY CARRYING 45-100 LBS.	
	5 EXCESSIVE COLD			34 MODERATE CARRYING 15-45 LBS.	
	6 EXCESSIVE DAMPNESS OR CHILLING			35 LIGHT CARRYING UNDER 15 LBS.	
	7 DRY ATMOSPHERIC CONDITIONS			36 WALKING	
	8 EXCESSIVE NOISE INTERMITTENT			37 STANDING	
	9 CONSTANT NOISE			38 CRAWLING	
	10 DUST			39 KNEELING	
	11 ASBESTOS, SILICA, ETC.			40 PULLING-STRAIGHT	
	12 SMOKE, FUMES OR GASES			41 PULLING-HAND OVER HAND	
	13 SOLVENTS			42 PUSHING	
	14 GREASES AND OILS			43 REACHING ABOVE SHOULDER	
	15 RADIANT ENERGY			44 USE OF FINGERS	
	16 ELECTRICAL ENERGY			45 BOTH HANDS REQUIRED	
	17 SLIPPERY OR UNEVEN WALKING SURFACES			46 REPEATED BENDING	
	18 MOVING OBJECTS OR VEHICLES			47 CLIMBING, LEGS ONLY	
	19 WORKING AROUND MACH. WITH MOVING PARTS			48 CLIMBING, USE OF LEGS AND ARMS	
	20 WORKING ON LADDERS AND SCAFFOLDING			49 BOTH LEGS REQUIRED	
	21 HIGH PLACES			50 OPERATION OF CRANE, TRUCK, TUG, TRACTOR OR MOTOR VEHICLE	
	22 WORKING BELOW GROUND			51 ABILITY FOR RAPID MENTAL AND MUSCULAR COORDINATION	
	23 EXPLOSIVES				
	24 VIBRATION			52 ABILITY TO USE AND DESIRABILITY OF USING FIREARMS	
	25 WORKING CLOSELY WITH OTHERS			53 SPECIFIC VISUAL REQUIREMENTS	
	26 WORKS ALONE			54 BOTH EYES REQUIRED	
	27 PROTRACTED OR IRREGULAR HOURS OF WORK			55 DEPTH PERCEPTION	
	28 UNUSUAL FATIGUE FACTORS *(Specify)*			56 ABILITY TO DISTINGUISH BASIC COLORS	
				57 ABILITY TO DISTINGUISH SHADES OF COLOR	
	29 SPECIAL CLIMATE FACTORS *(Specify)*			58 HEARING REQUIREMENTS *(Specify)*	

ADDITIONAL COMMENTS

A-12563

Naval Job Physical Requirements

Figure VI

JOB ANALYSIS SCHEDULE

NAVPERS-2497 (NEW 2-48)

A. IDENTIFICATION INFORMATION

1. JOB TITLE			SCHEDULE NUMBER
2. ALTERNATE TITLE			DATE
3. NAME		4. RANK OR RATE	ANALYST
5. SHIP OR STATION			REVIEWER
6. TYPE	7. CLASS	8. SHIP ☐ IN PORT ☐ UNDER-WAY	*(Editoral use only)*
9. DEPARTMENT	10. DIVISION		
11. SECTION	12. UNIT		
13. NAME OF IMMEDIATE SUPERVISOR			
14. JOB TITLE OF SUPERVISOR			

B. JOB SUMMARY

C. DESCRIPTION OF DUTIES

(Continue on reverse side)

A-11589-1

Job Analysis Schedule

Figure VII

1. Education and Experience

(a) Naval Schools and Courses - Minimum	(c) Civilian Schools and Courses - Minimum
(b) Naval Schools and Courses - Desirable	(d) Civilian Schools and Courses - Desirable
(e) Naval Experience - Minimum	(g) Civilian Experience - Minimum
(f) Naval Experience - Desirable	(h) Civilian Experience - Desirable

2. Knowledges and Skills Required

3. Personal Characteristics Desired

4. SIGNIFICANT TESTS

5. Preferred Rank or Rate	6. Age Preferred	7. Worker Preferred ☐ MALE ☐ FEMALE ☐ EITHER

E. SUPERVISION

1. SUPERVISION EXERCISED	2. SUPERVISION RECEIVED

A-11589-3

Job Analysis Schedule

Figure VII

F. MACHINES, EQUIPMENT, MATERIALS AND TOOLS EMPLOYED

1. Machinery or Equipment with which incumbent must be familiar	3. Machinery or Equipment operated, serviced, installed or repaired
2. Materials worked on	4. Tools, Devices or Publications used

G. ORGANIZATIONAL RELATIONSHIPS

H. PROCUREMENT SOURCES

1. INDUSTRIES

2. JOBS

I. CIVILIAN PLACEMENT INFORMATION	J. GLOSSARY

K. COMMENTS

of the billet and his superiors. In the interview, he should verify and amplify his notes. Information not obtainable by observation should be gathered. Facts obtained solely through interview should be verified by consultation with supervisory personnel and records.

When all information has been obtained on a particular billet, the analyst proceeds to repeat the process for each billet occupied by the same rating or jobs which are supposedly identical or closely related. The procedure here is the same, except that identical tasks are noted as such and detailed information on such tasks is not recorded. Operations which are completely different should be fully recorded.

After the analyst has analyzed and prepared complete notes on all billets of a similar nature or for an identical rating, he determines the number of Billet Analysis Schedules needed. This decision is based on a comparison of the notes on the battle, watch, and routine duties of each billet. He should carefully weigh and consider the extent and importance of the unlike duties. If the differences are unimportant or do not require additional skills or qualifications, only one analysis schedule is prepared. Thus eight or nine billets might be described on six schedules.

This process is continued until all billets of all ratings in a given activity have been recorded. The analysis schedules are then cleared with heads of activities or

departments, for purposes of security and to obtain verification and comment on the analyses.

Recording and Coding Job Requirements

Recording Job Requirements

Composite job descriptions or billet specifications are prepared from individual job schedules. The job schedules from all activities having the same mission or characteristics, such as Navy Yards, the same type of ship, or Naval Districts are examined and identical or closely related billets are grouped and used to prepare the job description.

Job descriptions prepared by the Bureau of Naval Personnel are composed of three parts: the identifying material, broad qualifications, and work descriptions. The identifying part of the description contains the job title selected from all titles in use as most descriptive, alternate titles, qualifications code or job code of individuals who can fill the billet, and locations of the billet. The qualifications section gives rank or rating and rate allowed, test score pattern of successful individuals in the job, physical demands, personal characteristics, education and experience required. The work description includes a billet summary; description of the duties performed; machines, equipment, tools and materials used; working conditions; billet relationships; procurement sources; civil readjustment information.

Similarly, the importance of security and to which social-
ization was assumed in the analysis.

Searching and Selecting the Interviewees

Reporting Job Requirements

Companies job descriptions or which specifications are prepared from individual job analyses. The job analysis from all managerial levels also made mistake or inappropriate, made on they least level, the open form of data, so level indicate and procedure and identical is already related duties are assumed and usually consider the job description.

The descriptions prepared by the manager of level functional was supposed of three parts: the identifying section, broad qualifications, and work requirements. The identifying part of the description contains the job title assigned from all items in an a work hierarchy, alternative titles, qualifications or job name of individuals who fill the duties, and locations of the duties. The qualifications section gives year of rating and years school. Four boxes listing at educational institutions in the job, requires demonstrated observability, adaptation and experience required. The work requirements indicate a list summary description of the duties performed, machines, tools and material used, working conditions; dirty relationship, supervised manner; civil environment information.

There is also included in the composite description a glossary of technical terms applicable to the job.

Coding Job Requirements

Every billet for enlisted men is assigned a code number from the Manual of Enlisted Navy Job Classifications. The billet description is incorporated in this manual.

A similar manual of officer job classification is in process of preparation and should be used when available. Until this manual is available, the Officer Qualification codes should be used to describe various qualifications essential to success in the billet.

Necessity for Continuous Classification

The classification of jobs and men is a never-ending process. Job requirements change with changes in mission, organization, procedures, and equipment. Changes in the number of personnel available will change job requirements, since consolidations or expansions will be necessary. New weapons and changes in old equipment will vary the nature of billets, create new ones, and make old ones obsolete. Every activity must constantly review its job descriptions and personnel specifications and keep them up to date. Changes in job requirements, desired changes in job codes, and desired changes in complement and allowances should be reported to the Bureau of Naval Personnel. They are made effective by that activity.

The qualifications of men are subject to even more constant change. Successful completion of schools and training courses automatically calls for reclassification examination. Men in training on the job acquire greater knowledge and skills. Their greater usefulness should be reflected in a change in classification. These changes should not await a change in rate. Provision for constant revision of the classification of personnel is a necessity for every activity and a responsibility of every officer with men under him.

Limitations of Classification

Personnel classification, as a technique for maximum utilization of individual qualifications, has its limitations. It is no "cure-all" for the problems of personnel distribution. The Navy, or any other organization, in a period of man-power shortage, must utilize the men available to it. The requirements of jobs and the qualifications of men will never be in complete balance. Problems of availability of the man at the time the job must be filled and transportation difficulties will prevent ideal solutions. Essential jobs must be filled and every individual must be utilized at all times. No compilation of job codes or individual qualifications can possibly describe all of the variations in billets which are essentially similar. The qualifications of the individual must be fitted into the job code which most nearly describes his aptitudes, interests, and skills. Thus the job

code will rarely describe completely the individual. Personality and other factors are equally important in determining job success. Classification on the basis of aptitude, which is the classification basis of most recruits, indicates a probable ability after training. Such men must often be placed in billets that require the proficiency now because no better qualified man is available. Distribution of large numbers of men, involving quotas, drafts, and pools, inevitably results in some maldistribution of men. The needs of the Navy, in the final analysis, must come before the interests of the individual. This means that every individual is not going to be placed in the billet for which he is best qualified all of the time. Everyone cannot be in command at the same time, and the Navy must have cooks and storekeepers as well as aviation mechanics and electronic technicians. The list of limitations is almost as long as the list of advantages and benefits. But as long as every effort is made to overcome the limitations, the ideal of the right man in the right job will be more nearly approached through personnel classification than through any other means of personnel control.

I have shown that

Summary

Personnel classification is the process of determining the aptitudes, knowledge, and skills of individuals; determining the qualifications essential for successful

performance in and the content of a particular job; putting the information obtained on individuals and jobs in a form which permits the distributing agency to place the individual in the job for which he is best fitted.

Classification of jobs and workers is a firmly established procedure in industry, governmental agencies, and the Armed Forces. It is utilized in many phases of personnel administration.

An individual's education, occupational and family background, intelligence, interests, aptitudes, and abilities are the basis of his qualifications for a job. They are determined through questionnaire, testing, and interviewing. When his qualifications are determined, he is assigned a job code number in the case of a Naval enlisted man, or his qualifications are coded in the case of a Naval officer.

The requirements of jobs or billets are determined by means of job analyses. A job analysis is a scientific, systematic determination of the tasks performed, amount of time spent on each task, purpose of the job, equipment used, knowledge or skills required, working conditions, and the physical and mental requirements essential for success in the job. As performed in the Navy, a job analysis is both a job and a worker analysis. The information is obtained by questionnaire, observation, interview, and from records.

Jobs requiring the same or closely related qualifications are assigned the same code number. For Naval enlisted

performance is not the behavior of a particular job; getting the information obtained on individuals and jobs is a form which permits the statistician almost to place the individual in the job for which he is best fitted.

Classification of jobs and workers is a fairly distinct function (whatever is included, interpretation, and the other phases. It is utilized in most cases of personnel administration.

A individual's abilities, occupational and family background, intelligence, interests, aptitudes, and skills are the basis of his qualifications for a job. Some are determined through questionnaires, testing, and interviewing. Some are qualifications are determined, he is assigned a job and begins in the base of a total activity such, or the qualifications are based in the case of a naval officer.

The requirements of jobs or activity are determined by means of job analyses. A job analysis is a systematic determination of the basic information, nature of the work and - purpose of the job, equipment used, knowledge or skills required, working conditions, and the mental and physical requirements necessary for success in the job. As performed in the Navy, a job analysis is made a job or a worker analysis. The information is obtained by questionnaires, observations, interviews, and from records.

Jobs requiring the same or closely related mental qualifications are assigned the same pay number. For naval officers

jobs this code number is obtained from the same manual used to code individual qualifications. For Naval officers' jobs, significant job qualifications can be coded using the manual of Naval officer qualifications.

Use of the same code number for jobs and for individuals qualified to fill the jobs enables the distributing agency to match jobs and workers.

The classification of jobs and workers is a never-ending process. Job requirements change and new jobs are constantly being brought into existence. New men are constantly entering the services and old men acquire new or higher qualifications, necessitating re-classification.

Personnel classification has its limitations in assigning men to jobs. Job requirements and individual qualifications are never in complete balance. Essential jobs must be filled and every individual must be utilized. A particular billet may have special requirements which cannot be indicated in any general coding system. Distribution of large numbers of men will inevitably result in some maldistribution of abilities. The needs of the Navy must be considered paramount to the interests of individuals. But classification still offers the best solution to placing the right man in the right job.

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